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ETIOLOGY AND TREATMENT OF TYPHOID.

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Some of the matter contained in this discourse may seem irrelevant, but it was impossible, without some prelude, to make my meaning clear. It strikes me that physicians do not stop often enough to consider the significance and cause of symptoms in disease. Why does not one in sickness go on to recovery or to death without any such manifestation as a symptom? As compared to the time since the creation of man the short period that our profession has been able to render any service to mankind is but a day. These same symptoms were manifest in the systems of the preglacial man and long before they could be interpreted or associated as they now are. Are they then, as now so generally accepted, simply the signs of disease, the perverted and morbid conditions signaling to the physician to annihilate them and thus cure the disease which they, in the aggregate, are supposed to represent? Nature is, undoubtedly, always conservative. She will never kill one of her own creatures, and if disease attack the system of one of them she is up in arms at once to protect him. What are commonly called symptoms are Nature's remedies for the disease in which they are seen, or they are conditions, or collections of conditions following her remedies.

Now I wish to show that in a given disorder there are symptoms and sets of symptoms or signs, which are essentially different, and though speaking in the same tongue are dwelling upon a different topic. For example, and a more thorough study of disease, it seems rational to divide symptoms as follows:

1. Those symptoms that are due to or really are the morbid materials, *e. g.*, the hæmatozoa malariæ of Laveran, in ague, or the alkaloidal ptomaines in the diseases due to germs.

2. Those that are Nature's remedies and which are directed toward the destruction, removal or the modification of any foreign substance which is incompatable with natural function. Nature's remedies are her only resources, and they differ to a great extent from those the physician can exhibit; but if the cause of the disease is to be removed and recovery to take place the physician must follow in Nature's lead or else leave her untrammelled in her efforts to relieve the sufferer. In typhoid fever this set of symptoms comprises elevation of temperature to burn out or oxidize the typhoid poison, and an antiseptic diarrhœa to prevent the growth of the B. typhosus and to remove the germs from the bowels. In tuberculosis these symptoms are fever for oxidation, expectoration to rid the economy of the poisoning material and profuse perspiration to wash out the oxidized products from the system.

3. The symptoms of this class might properly be called concomitant, as they occur as a sequel, not following in the wake of, but rather accompanying, the symptoms above. These represent the effect of Nature's remedies or the cardinal symptoms, and they are not directly curative. In phthisis we have wasting of tissue from the hectic fever, hæmorrhage from ulceration through the vessel wall in the lung. Here hæmorrhage and wasting are symptoms but they are not of any utility to the patient; they represent the effect of the remedy that Nature applies in the one instance, and the effect of the presence of the first class of symptoms, in the other. In typhoid this class is represented by the peculiar smell of the dejections, muscular debility, hæmorrhage, borborygmus, coated tongue, etc.

4. This class is due to the remedies the physician applies, and are very much more variable than those preceding, for the reason that the physician is more inconstant than Nature in prescribing. These symptoms are the physiological actions of the drugs administered. The first class given is no doubt not symptoms in reality but pathological indications, and represent the cause of disease.

Therefore, from the foregoing, *a symptom is a modified physiological function brought about for the better adaptation of the system to rid itself of a foreign and irritating substance.*

I here introduce this definition to accentuate the fact that what is commonly called a symptom is a modified physiological function, and that this

modification is brought about to meet the conditions arising from a morbid substance in the economy. If this is brought about to meet such condition, and it manifestly is, then we must accept the fact that what we speak of as symptoms are apparent (*i. e.*, easily seen) conditions or safeguards thrown out by the system, actuated by its "cell sense," to do battle against the foe.

My purpose in thus classifying symptoms is to show those symptoms that it is safe to combat; those that it is safe to augment, and those that it is safe and wise to ameliorate. In all cases we know that it is safe to remove or combat the cause. In typhoid the germ must be removed, and Nature is trying to do this by a diarrhœa of a peculiar kind. Then combat the cause by augmenting the remedy, diarrhœa. Look to it that this is not hampered by what I have denominated concomitant symptoms, tympanites, coated tongue, hæmorrhage, debility, etc., by correcting or assuaging them. My purpose in considering the fourth class as symptoms in any given disease, is for the better illustration of the preceding classes and to elucidate what I consider the true definition of a symptom.

For example, a lethal dose of morphia is administered; this is the disease. Deep sleep, insensibility, heart failure, failure of respiration, clammy skin, vomiting at the outset, great irritation of the skin (itching), especially of the nose and lips. These are concomitant symptoms. Now, this is a lethal dose, and strikes down with overwhelming force the centres and lines held in the hand of Nature as surely as a pistol ball would; but, notwithstanding, Nature reveals the line to be followed. The indications are but short lived, and are only to be noticed for a limited time after the dose is administered and are known collectively as the stage of stimulation, in which the temperature is elevated, arterial pressure increased, renal elimination hurried, respiration accelerated and, frequently, emesis. These are Nature's remedies, but they are not strong enough to ward off the trouble and the system sinks; but if a patient recover from a poisonous dose of morphia this sequence of symptoms must be prolonged.

In typhoid fever the germ B. typhosus is the cause; the alkaloid typhotoxine is the disease; fever, diarrhœa, anorexia and lassitude are the cardinal symptoms of Nature's remedies, and furred tongue, debility, tremors, etc., the concomitant symptoms, or the results of the *vis medicatrix naturæ*.

Etiology.—Geographical location, climate, season, age and diet are predisposing causes. It is with the last only that I wish to deal in conjunction with the direct exciting cause, the Koch-Eberth germ B. typhosus. After a case of typhoid in 1882 I began the investigation of the disease and its causes. This case was that of a Polish youth, and I did as many a more learned physician has done before me, made a mistake in the diagnosis. Being fresh from college, and full of J. Milner Fothergill's "Indigestion and Biliousness," the trouble was pronounced subacute biliousness and was treated accordingly; but the fever continued, and though better, my patient did not recover as he should had it been a simple bilious attack. On the tenth day, in company with another physician, the diagnosis of typhoid was pronounced. From the fact that my patient had grown no worse the cholygogue treatment was continued, and on the sixteenth day we were pleased to see the temperature normal, and after this convalescence supervened rapidly. My next cases were treated on the same line and inquiry into the cause was instituted. It will be observed that the stools in enteric fever are dark greenish-brown, which I attribute to the presence of bile, and knowing that occlusion of the bile ducts permits a peculiar decomposition of the intestinal contents, I arrived at the conclusion that the presence of bile in the gut destroyed the typhoid germ in some manner, and consequently the absence of bile would favor the growth of the bacillus. Careful inquiry has been made in all my subsequent cases and symptoms of profound biliousness have been uniformly noted. If we but compare the symptoms of hepatic congestion and the prodromes of typhoid, we cannot but note their similarity. In both we have, in the language of Loomis, in his "Practical Medicine," "a grumbling headache, more or less aching of the limbs, a tired feeling all over, chilly sensations, flashes of heat and anorexia;" then we may have a slight diarrhœa, and always in the beginning a yellowish-white coat on the tongue. Listen for a moment to Murchison: "The symptoms of deficient excretion of bile are irregular bowels, colorless stools, loss of appetite, yellowish fur on the tongue, bitter taste in the mouth flatulence, languor, disinclination to exertion, great depression, frontal headache and heaviness." Fothergill adds: "I am so tired and sore all the time; as tired on awaking as retiring."

There is no doubt from the experiments of Charrin and Roger that bile is an antiseptic of no mean magnitude. They have shown that some of the components of bile are more energetic than others, especially were the tauro-cholates shown to be effective antiseptics. The bile salts as above were more powerful than bilirubin. Bufallin gives us the same results. Fothergill says, "the bile coloring matter and the bile acids go together, where the one is the other is not far away." Taurocholic acid (C. H. NO S) contains sulphur and is more profuse in the presence of bilirubin. When the fur on the tongue is most brown from the staining of its epithelium with the bilirubin, the taste is the most bitter from the presence of the taurocholate of soda. This shows that when the tongue is thus coated the liver is not acting and

that there is no bile being poured out into the intestine.

Desiring to ascertain whether bile has any antiseptic action on the typhoid germ I obtained a pure culture from one of my cases. From this I inoculated twelve halves of boiled potatoes. After twenty-four hours a few drops of carefully prepared ox bile were applied to the cultures. This was repeated for three days at intervals of six hours and the cultures made no further material progress, and on the seventh day were about as much developed as the untreated cultures were on the third day. Four others were treated with the bile after fifty-six hours, at which time the cultures had made considerable progress, and although the cultures continued to grow the growth was very slow, and on allowing the bile to drain off and dry, the germ growth did not continue. All the cultures emitted, in a very marked manner, the characteristic odor of the typhoid stool.

My second and third experiments were on six potatoes and six test tubes of nutrient gelatin on which were used fresh specimens of ox bile. These served to confirm the first experiments, but in a more positive manner. The cultures that were treated within the first twenty-four hours exhibited no growth whatever for many days.

The conclusions to be drawn from the above are: 1. Bile destroys or at least retards the growth of the B. typhosus, and apparently does so by retarding sporification; 2. It is reasonable to suppose that bile is excreted in larger quantities, coloring the stools and aiding peristalsis to rid the bowels of the germ; 3. If the above are true, then in the absence of bile in the bowel the germ would find no restriction to its growth and multiplication, and the diet that would produce biliousness would be a predisposing cause of typhoid; 4. If bile destroys the germ it must be one of Nature's remedies and should be encouraged to flow. It is generally stated that the most dangerous cases of typhoid are those in which the bowels refuse to act. In those cases where there is a profuse diarrhœa which is indicative of great irritation of the mucous lining of the bowel from the presence of the germs, the diarrhœa can be most easily checked, when in the early stage, and there is no reason to suspect much glandular necrosis, by a gentle cholagogue cathartic. *Bile*, then, is one of *Nature's remedies*.

The Cause and Use of Febrile Movements.—Before there can be a rise of temperature there must be a derangement of the thermotaxic function of the system. That is, the avenues for the escape of heat must be unstable and heat loss be less than heat production. Now if this alone constituted the phenomena of pyrexia the subject would be a simple one indeed, and all that would be required would be to aid radiation and conduction of the heat. But Wood and Reichert have shown that the matter does not end here, for a high temperature may be present with a great amount of heat-loss going on, and by their calorimetric researches they have, with Donald Macalister, shown that the thermogenic function may be actively excited, and the sublingual temperature be little more than normal, or there may be little excitation of the thermogenic centre and a very high sublingual or rectal temperature, provided the conduction and radiation of heat be abolished or hindered. The significance of this is stated by Macalister (*British Medical Journal*, Vol. 1, 1887, page 566), as follows: "The processes which issue in motion on the one hand and thermogenesis on the other are associated with chemical movements in the muscle, with metabolisms, whose terminal steps are accretion of oxygen and excretion of carbonic acid and water. Both the contractile and the thermogenic stuffs are stored in the muscles but are not the same, but as far as function goes they *are* the muscle. Each can be exhausted, the thermogenic sometimes sooner than the contractile. Both are upbuilt by the circulating blood, but in some cases the contractile stuff sooner than the thermogenic. Both are affected by cold, but the thermogenic much sooner and more intensely then the contractile. We know but little of the chemistry of these metabolisms. Oxygen is taken up in each, and carbonic acid is eliminated, but the processes passed through between these terminal stages are more complex than simple oxidation. *This in health; but if the reconstructive part of the process is inadequate or absent, the balance of accounts will give evidence of a nitrogenous residuum which is marked. The muscle substance will appear itself to be consumed; it will no longer be what I might call the circulating medium of consumption.* The cast-out muscle molecules are not excretionary in the same sense that carbonic acid is excretionary. *In fever the nitrogenized substance of the system have been consumed, and for some reason.*" Will we say that this substance has been consumed by the fever, or will we say that the fever has been fed by this combustible substance? Macalister again says (ibid.): "Some of the figures show that as the course of the temperature varies, the rate of heat production may actually be highest when the temperature is lowest, an excessive rate of heat-loss overbear, and thus disguise a simultaneous excessive rate of heat production; and conversely, the time when the temperature is high may coincide with a time when the heat production is low."

If this tissue metabolism goes on regardless of the height of body temperature, then there is some other reason beside elimination, or rather the lack of elimination, for this heat being present. It is reasonably demonstrated by physiologists (Wood, Foster, Hale-White, Reichert), that there is a nervous centre which regulates the

production of heat in the animal body, which they call the thermotaxic centre. If this be excited, or rather stimulated, heat production is in excess; if it be depressed the usual thermogenesis does not occur. Now if this be true, is it, or is it not similar to the centre governing respiration, and when its function is most needed is it not called into the field of action there to do its duty? When the tissues need rebuilding they send out a dispatch over their telegraph lines to the central office, the brain, for food, and the central office again wires the commissariat, the stomach; and if there be no stores on hand it is here that the desire for food is felt. The tissues feel a need of oxygen. The message is flashed to the brain and thence onto its switch-board, from whence the message is conveyed to the respiratory centre which notifies the lungs to rapidly fill and empty themselves. Why do these dispatches have to be sent out? Because there is some obstruction to physiological function, and this substance must be something useless to the economy. Where there is a demand on the respiratory centre the offending material is carbonic acid gas. In the case of hunger the presence of the materials of retrograde metamorphosis is in excess of the building materials, or perhaps more accurately, there is felt the desire for more strength through more protoplasm, blood, chyle, food. If there is any offending material in the system which it is Nature's intent to burn out or oxidize, the alarm is sent to the centre governing the heat production. The thermogenic stuff is there in the system; and then comes the call for more oxygen. The conflagration goes on and the material is oxidized, and perhaps thus rendered wholly inert. What benefit then is to be derived from measures directed toward aiding evaporation, or radiation or conduction of the heat away from the body through the skin? It is true that some of the offending matter may be thus washed out of the system through the pores, or the immediately contiguous atom to the one being oxidized may be cooled off to await combustion on another day; but the material is there to be consumed and the tissue must be sacrificed to do it, for it matters not whether there be a high sublingual temperature or not, the consumption of the thermogenic and the contractile stuffs is progressing. It would be far more rational to prevent the irritating substance from entering the system, or where this is impossible from lack of accurate, scientific knowledge, to conserve the tissues, as we *can* do by furnishing something to the system easily oxidizable which would be burned in preference to the tissues.

By experimenting with bacteria it is ascertained that there are particular temperatures at which they thrive and grow, at which they cease to seggregate and sporify, and at which they die. The temperature at which they grow most luxuriantly is between 96–99° F., that at which they cease to seggregate and sporify is 111–114° F. The most of them die outright at a temperature of 150° and the spore dies at 212–220° F. You say then that the temperature has nothing to do with the germ in fevers, and only apparently makes it grow more rapidly, Granted that you may be right, but, let us inquire.

When the sublingual temperature is 98.6° F. the temperature in the hepatic vein is 103–107° F., and if the sublingual rise to 105° we would have the hepatic temperature of 114° F. This of course will not kill the germ, but it is very effective in preventing multiplication by fission and sporification. Pasteur, Koch, Breger, Eberth and others tell us that the B. anthracis is not in the circulating blood but one or two hours before death ensues from its presence. Breger tells us the same thing also regarding the B. typhosus, when it is then also in the spleen. When the germs once enter the blood there is nothing to prevent their rapid multiplication except high temperature, which being interferred with, permits death to quickly ensue. Nature makes one final effort; the outlets for the escape of heat are closed, and an intense conflagration is lighted up in the body furnace, but it is then perhaps too late and the patient is said to have died of hyperpyrexia.

Again, the disease is not the germ but the ptomaine manufactured by the germ, and at certain temperatures it is rendered inert (Breger), or is formed into a less harmful product, which is perhaps excreted as a leucomaine, or else it is not formed at all.* For instance, if in nutrient peptone broth cultures of B. typhosus remain at a temperature of 102.2° F. for twenty-four hours there will be no ptomaine, typhotoxine, formed, but in its stead there will appear creatine, a leucomaine of less harmful tendencies. Now how can we, in the face of the fact that the temperature of the liver is almost constantly 105° and the temperature requisite to convert typhotoxine into creatine is only 102.2°, say that pyrexia is not a remedy instead of a symptom, and that it ought to be interferred with? But hyperpyrexia? It will not occur if nature be aided in other quarters.

For two thousand years physicians have been engaged in a wild, hurried and anxious rage to discover some new remedy to combat fever. They have had tartar emetic, digitalis, aconite, veratrum, quinine, salycilic acid, antipyrin and acetanilid and still the fever goes on. We are told that the fever must be lowered or the patient will die. I do not believe that high temperature ever killed anyone. But we are told that the patient cannot live long with a temperature of 106° or 107° F. Of course they cannot; but this is no proof that they expire from hyperpyrexia.

When the fever suddenly flashes up to such dangerous height it indicates that the system's bulwarks have been overthrown, and that the germs are invading the blood and tissues generally, or more frequently it denotes a great influx of the alkaloids or the albumoses into the system, which immediately begins to burn them out, because they are there in large enough quantities to stimulate excessively the thermogenic centre. The larger the dose of typhotoxine injected under the skin the higher the temperature will run till a certain limit is reached, when the irritability of the thermogenic centre becomes exhausted and the temperature falls below the normal. If the above be true why do we ever give an antipyretic in typhoid that we have had under our care from the first? And above all, why is it ever necessary to give a cold bath? Cold bathing and a milk diet is the present treatment. Do we expect to depress the temperature below the growing point of the germs or the forming point of the ptomaine? The remedy is a good one in its place for it acts as a tonic to the system, and by contracting the surface arterioles it flushes the capillaries of the internal organs, and thus retards the absorption of the poison which is being manufactured in the bowels. It also possibly aids the elimination of the ptomaine already in the system. But all the previous methods of treating typhoid have required from four to six weeks for recovery. Now if a treatment that allows of a normal temperature in from ten to sixteen days be advanced, why still advocate an unnatural method of treatment that loses two or three weeks of the patient's time?

We do not now expect to cure ague with quinine by depressing the temperature, but by killing the hæmatozoa malariæ of Laveran. Quinine is absorbed and circulates along side of the organism and destroys it by attacking its protoplasm. The B. typhosus is not in the blood till late in the disease, but exists by the million in the bowels and fæcal matter. By actual experiment it has been demonstrated that bile kills or stunts them; shall ice baths and milk diet be ordered, or shall a cholagogue be exhibited?

Since mercurials are not cholagogues in reality, but serve to stimulate the liver and thus eliminate bile more rapidly than any other means at our command, it is preferable, since bile is in excess in the system and only needs to be eliminated, to begin with some mild preparation of mercury, such as calomel. This is administered for the first two or three doses in two- or three-grain powders, then the next six or eight doses in one-half or one-fourth grain doses, and then for six to ten days one-tenth of a grain at a dose every three or four hours. About the fifth or sixth day the salicylates, turpentine or salol which really cause a greater formation of bile, will be of service in combination with the calomel, to the case. If the case is seen late and there is a very high temperature to combat, with great depression and wasting, conserve the tissues with alcohol. It is possible that the calomel may act directly as an antiseptic on the germs, but I have had quite the same results with the administration of podophyllin. Out of fifty-two cases that I have thus treated I have not observed one instance in which there appeared salivation. Of the fifty-two cases there were none that were not free from fever on the seventeenth day, and only one that ever had a temperature of 103.5° F., and he called me on the fifth day that he was confined to his bed.

Apropos of the action of bile on the intestinal contents and the utility of the cholagogue treatment set forth above, it might not be untimely here to say that the same comparative results obtain in treating summer diarrhœa of children in the same manner. Podophyllin, calomel, salol and turpentine continued, with an occasional dose of coto, have produced most brilliant results, and I apprehend that Dr. Boardman Reed's experience (*Practitioner*) in checking diarrhœa with podophyllin is a like result.

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SOME OF THE LESIONS INDUCED BY TYPHOID FEVER.

Read before the Cambridge Society for Medical Improvement, February 23, 1891.

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Perhaps no disease whose records have been embodied in medical literature is attended or followed by a greater variety of lesions than is that of typhoid fever. The functions of the great nerve centres, including the brain and spinal cord, as also those of the nervous system generally, are liable to be seriously influenced, weakened or interrupted, for periods of uncertain duration, by the occurrence of an attack of typhoid fever.

Among the sequels or complications that have been observed is dementia, insanity, loss of sight, aphasia, paraplegia and other forms of paralysis. Sometimes only one limb, as a leg or an arm; rarely, only an arm and a leg at the same time. At other times disturbances are limited to the functions of speech. Cases now and then occur, in which we have paralysis without appreciable anæsthesia. The more common forms are those in which both the motor and the sensory portions of the nerve are involved. Neuritis beginning at the peripheral portions of the nerve is not an uncommon sequel of typhoid fever. Another complication of typhoid fever is pneumonia. This is often of a limited extent, but occasionally it is more or less diffused. Perhaps the particular

position which the patient assumes during the first illness in the fever may have a controlling influence in the extent and severity toward that sequel of the disease. Formerly much was said in reference to pneumonia as a complication of disease. Such attacks of pneumonia were called "hydrostatic," from the supposed influence position of the patient exercised in favoring the gravitation of the blood and other fluids to the more dependent portions of the parenchyma of the lungs.

In my own practice I have met with three well marked cases of aphasia occurring in typhoid fever. The patients were young; their ages being 12, 14 and 17 years. The aphasia in each case occurred after the second week of the fever. The temperature had been unusually high, and much exhaustion had ensued. No paralysis, nor other morbid process of the nerves occurred. The patients at length fully recovered.

The record of the following case presents an affection of the eye: Mrs. B., aged 31 years and mother of three children, had the characteristic symptoms of typhoid fever, such as epistaxis, rose spots appearing on the seventh day following the initial chill. The patient had been very delirious, and had become much exhausted. After the fifth week she complained of pain in the eyes, more especially in the left one. Ophthalmoscopic examination revealed neuritis extending to both discs. After the temperature became normal she suffered from perversion of the senses, and at length became partially insane. There was no history of renal trouble, the urine at that time contained only traces of albumen. The patient finally recovered without sustaining permanent loss of vision.

Disease of the optic discs following typhoid fever is mentioned by Dr. Oglesby,[1] of Leeds. That author says that he has never met with a case without a distinct history of meningitis. "The majority of those patients," he says, "present objective symptoms indicative of acute kidney mischief, having a decided appearance of cellular dropsy of the face, with the usual pallor of such cases. It is very exceptional that albumen is found in the urine."

I have records of a case of severe laryngeal inflammation, following typhoid fever. The case occurred six years ago, in a man aged 42 years. The typhoid symptoms were quite characteristic. The morning decline, and the evening increase of temperature prevailed throughout the attack. From the onset there had been much delirium, also tympanites and a profuse diarrhœa. After the fourth week the patient showed decided improvement. On the fortieth day a dyspnœa ensued, though there was but little cough and no cardiac disturbance. For the next two weeks the symptoms were more serious. The respiration became more and more difficult, and at length the patient appeared in imminent danger of suffocation. The late Dr. A. F. Holt saw with me for several times the case in consultation. It being evident that there was an abscess which was extending into the laryngeal perichondrium. On the sixty-first day operative measures were decided upon. By the use of cocaine we were enabled to reach the abscess without the necessity of resorting to laryngotomy. The patient ultimately recovered, though there remained a laryngeal stenosis. Two years later the patient died of acute pneumonia, hastened, no doubt, by the laryngeal constriction.

I have notes of four cases of pneumonia occurring as sequel or complication of typhoid fever. In one case in which the typhoid symptoms were well pronounced, pneumonia developed in the third week and led to a fatal termination. This occurred in a female aged 18 years. For some two years previous to the occurrence of her last sickness she had suffered from impaired health. In three cases the patients were aged respectively 17, 20 and 29 years. In two of the cases the area of dulness was limited. In the third case the whole of the right lung was involved. The patient did not recover until the fourth week after the onset of the pneumonic symptoms.

In a case of typhoid fever occurring in a woman aged 34 years, the mother of two children, acute pleurisy developed in the sixth week. There was marked dulness on percussion over the right side, also egophony and absence of vocal fremitus of that side except at the upper third. The effusion was moderate in amount. She recovered with slight retraction of the chest of that side. Two years later phthisis supervened, from which she died within eighteen months.

In one case of typhoid fever occurring in a man aged 41 years, facial erysipelas made its appearance on the forty-first day after the beginning of the febrile symptoms. This complication ran into the ninth week, causing an abscess of the scalp just back of the forehead.

Another complication I have met with is that of parotiditis. This occurred in the case of a man aged 37 years. The attack of typhoid in the patient was of a severe type. Inflammation of the right parotid began on the tenth day after the initial symptoms of the fever. Hope in the patient's recovery was entertained until the twenty-fourth day. Soon after that the patient rapidly sank, and died three days later. Suppuration of the parotid did not take place. The inflammation, however, extended into the cervical and axillary glands. This was the most marked case I have ever met with, in civil practice.

I recall cases occurring in the Spring and Summer of 1862, during the Peninsular campaign. At that time the occurrence of an affection of the parotid in a typhoid case was regarded as an ex-

[1] Boston Med. and Surg. Journal, Vol. cviii, p. 476.

tremely dangerous complication. Some forms of paralysis after typhoid fever have been reported by Dr. Ross.[2] Dr. Ross mentions two cases; in one case there was severe paraplegia attended with much pain, rigidity, and wasting of the limbs, but with no anæsthesia. In the other the paralysis was unusually extensive, involving all the limbs, also the muscles of the palate. Both cases ended in recovery.

A case of paraplegia after typhoid fever occurring in my own practice was that of Mr. S., aged 29 years, a teacher in a Boston school. The fever had not been unusually severe, though the symptoms were well pronounced. After the fourth week the temperature became normal. The patient in other respects was also much improved, except that there was pain in the limbs and an inability to use them. The patient at first was unable to stand. Ten days later he was able to get about his room, with a sort of shuffling gait. Some weeks later he fully recovered and was able to resume the duties of his school.

Two cases affecting the muscles supplied by the circumflex nerve I have met with. One, a case of a child aged 6 years, occurred in my own practice. The other, a case of a man aged 21 years, occurred in the practice of the late Dr. Church. This case I saw in consultation. Each patient finally made a good recovery.

Two years ago I was called to attend a child aged 7 years, who had recently recovered from an attack of typhoid fever, and who was suffering from partial loss of speech. The palatal muscles were affected. The paresis resembled that supervening after diphtheria. The history of the symptoms clearly showed that her condition was the result of typhoid fever. She afterward greatly improved. I am now unable to state whether she ever fully recovered.

Two cases of periostitis occurring in typhoid fever have come under my treatment. The first patient, J. O., a girl aged 9 years. She suffered from typhoid fever upwards of three weeks. She was then able to be up and about her room. Six days later she was seized with a relapse which lasted nearly four weeks. The evening temperature was unusually high, there was much delirium. The patient refused all kinds of nourishment except milk and the stronger stimulants. The latter she took in abundance. After the fourth week of the relapse, her left elbow-joint became greatly inflamed and was much swollen. Suppuration of the elbow-joint ensued, necessitating a deep incision into the joint, and a large amount of pus was evacuated. Several places in the periosteum of the ulna from elbow to wrist were the foci of suppuration; indeed, the whole shaft of the ulna was involved. The first abscess appeared in the periosteum near the left olecranon, and involved the elbow-joint. An abscess also appeared on the opposite side of the joint. Both these abscesses communicated with each other. An inch below and more to the inside was a third abscess. On the same line and an inch below the first was a fourth abscess. Another formed midway between the other two. Another occurred in the middle third of the ulna. Another, the seventh, opened near the wrist, but fortunately did not involve the joint. From time to time several pieces of necrosed bone were discharged through the open sinuses formed by the suppurative processes. This patient finally recovered with a stiff elbow-joint. Dr. H. O. Marcy, and also Dr. Geo. H. Lyman, of Boston, saw the patient while she was suffering from the effects of the periosteal inflammation.

There was a peculiar interest attached to this case, as a suit by the parents was brought to recover compensation for the child's sickness and also for the loss of use of the arm. It appears that the mother, a short time immediately preceding the attack of the typhoid fever, was employed to do special work in a family in which there occurred a fatal case of typhoid fever. Without being informed of the dangers incident to such service, the mother returned to her own home, carrying from the sick-room a piece or pieces of bedding to be washed. Not long after this her own daughter, J. O., was seized with typhoid fever with results as above stated. Had the case not come to a settlement without a trial, some of the most important points relating to the responsibility of families to domestics would have been urged in the prosecution for judicial consideration.

The other case occurred in a lad, H. M., aged 13 years. The history of the case shows that he had studied hard at school; that often he had been out late at night to fulfil engagements as cornetist. When I was called, February 7, the patient showed the characteristic symptoms of typhoid fever. He had epistaxis, tympanites, headache, delirium; later rose spots, evening temperature higher than the morning. After the third week the typhoid symptoms abated; the patient was able to leave his bed. His recovery was soon interrupted by repeated chills, each chill being followed by a greatly increased temperature and an exacerbation of the other constitutional symptoms. In the right thigh, just above the knee, there was a most intense pain. Soon much swelling at that point developed. March 14, with Dr. H. O. Marcy's concurrence, I made a deep incision into the swelling and obtained a free discharge of pus. By liberal use of antiseptics and the drainage tube, the patient at length fully recovered without appreciable injury to the knee-joint.

On reviewing the history and symptoms of this case it might appear at first that the constitutional symptoms were wholly due to inflammation

[2] Braithwaite, part 97, p. 30.

of the periosteum, as there was a history of a fall upon the knee. The initial symptoms, however, from which the patient suffered were typical of typhoid fever; beside, after the third week there was for awhile an intermission, or rather cessation of the constitutional disturbance.

J. O. Affleck,[3] M.D., reports three cases of periostitis in typhoid fever. These cases appeared in a total of 117 cases which were under treatment in 1884 (in the typhoid wards of the Fever Hospital of the Edinburgh Royal Infirmary). Two of them occurred in young men, aged each 21 years. One of them had periostitis commencing in the right tibia in the third week of the fever. This produced a recrudescence of the fever, and prolonged the case for four weeks, but the patient made a good recovery. The other showed symptoms of marked periostitis in the right humerus in the third week, and this was followed by a similar condition of the right tibia. Convalescence was slow, and after the periostitis had apparently departed, it reappeared in the right humerus, and an abscess formed. The patient ultimately recovered. The third case was that of a girl, aged 9 years. The attack reduced her to such a degree of exhaustion that, for a time, it seemed scarcely possible she could survive. In the fifth week, and just as the temperature had begun to subside, she was attacked with periostitis of the right humerus, which set up fever again and caused her intense suffering. Contrary to expectation, she recovered. No abscess formed, but the painful swelling of the shaft of the humerus continued for full six weeks from its appearance. Dr. Affleck refers to Sir James Paget's observations that periostitis with or without necrosis may be enumerated as one of the sequels of typhoid fever. Sir James had seen such cases when they occur only at advanced stages of convalescence, and when the patient was regarded as free from fever. Dr. Affleck says that periostitis may occur at the height of the fever, or when convalescence has no more than begun; that such a morbid condition may be regarded as a complication no less than as a sequel of typhoid fever.

Among a few of the more serious sequels which are liable to arise in typhoid fever is softening and degeneration of the tissues and organs belonging to the circulatory system. Cardiac thrombosis, emboli of the larger, and embolic occlusion of the smaller branches of that system, are not very uncommon occurrences of the typhoid state. Affections of the heart from such a cause were long since described by M. Louis, and also by earlier observers. Variation from the typical diurnal temperature is another peculiarity which is sometimes observed. Quite recently, in a case of typhoid fever occurring in a man aged 31 years, there was a morning increase, and an evening decline in the temperature. The patient had been greatly exhausted from overwork, and from a diarrhœa which supervened at an early stage of the fever. The diarrhœa, however, was readily overcome. Delirium from the first stage was unusually marked. Though the patient was able to take a liberal amount of nourishment, including milk, broth and even stimulants, he had but a feeble and compressible pulse. He gradually lapsed into a cyanotic state, and died apparently of cardiac failure (if such a failure from such a cause ever occurs), in the fourth week of the fever.

In regard to the etiology of the sequels and complications of typhoid fever, it may be remarked that the typhoid bacilli and their ptomaines produce such changes in the tissues as to diminish their resisting power. The osseous tissues, as also the parenchyma of the lungs and of the other parts of the organism, being subjected to such influences, are thereby more easily invaded by the pyogenic and septic cocci. These invading elements, under such conditions, induce sooner or later, in one or more of the various tissues, an irritation, inflammation or suppuration. The severe and prolonged pyrexia also interferes with the nutrition of the nerves. This undoubtedly leads, occasionally, to dementia, insanity, and to cerebral affections generally; also to disturbances of nerves, sometimes at their origin, sometimes along their branches, and sometimes only at their periphery. The presence of such lesions and their extent will depend, no doubt, largely upon the susceptibility of the patient, the degree of exhaustion of the nutritive functions, and upon the nature, potency, and perhaps quantity of the invading cocci.

[3] Braithwaite's Retrospect, part 92, p. 27 (British Medical Journal, 1885).

LECTURES.

EMPYEMA.

A Lecture delivered at the Post-Graduate Medical School, Chicago, January 24, 1891.

BY BAYARD HOLMES, M.D.,
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No surgical procedure is so little studied and so often overlooked with such deplorable consequences as empyema.

One of my neighbors, who is quite deaf, recognized a case of right-sided empyema in a man 36 years old, and sent him immediately to one of our large hospitals. He remained in the hospital three weeks and was discharged to die of phthisis. My deaf neighbor was surprised that the true condition was not recognized, and fearing he had made a mistake, he drew out a syringeful of pus with his hypodermic. Thus satisfied as to his own diagnostic acumen he took care of the patient and "promoted euthanasia."

Numerous instances have come to my knowledge when cases have not been recognized; others where, though recognized, proper and adequate treatment has not been instituted and others, though recognized and properly treated at first, the same degree of logic and skill has not been followed out in the subsequent treatment.

As an instance of the first kind I will mention a case which was observed in a man who was discharged from the Kankakee Insane Asylum to die from phthisis. This man recovered without any inhalations or injections in a remarkably short time, both of his insanity and of his phthisis, upon the evacuations and drainage of the right pleural cavity. Numbers of similar cases have come in the experience of almost every physician. Some of the cases even more mournful in their results.

My only excuse for calling attention to this disease is to enforce the teachings of modern mycological pathology in an instance which presents many peculiar difficulties and modifying elements.

There can certainly be no progressive suppuration without the presence of pyogenic bacteria. Every other form of inflammation (non-suppurative) in the pleural cavity is due to the infection of that cavity with non-pyogenic but *pathogenic bacteria or other microörganisms*. It follows from the anatomy of the pleura that except in penetrating wounds, its infection must always be secondary, and pleuritis and empyema must be looked upon as secondary and complicating diseases.

Pentzold observes that empyema is a frequent sequence of fibrinous pneumonia, and he looks upon it as a secondary infection of the pleuræ with pus microbes. The manner of this secondary infection I shall try to explain.

The normal physiological resistance of the peritoneum to infection is known from clinical experience and experiment to be very great. (Rinne.) This, as I have repeatedly asserted, is due to the evolution of a tolerance to infection from the great proximity of infective material in the intestinal canal. The same tolerance to infection has not been evolved in the pleural surfaces, for they are farther removed from sources of contamination.

The pleuræ are most likely to be infected from the invasion of microörganisms from *infected air cells or bronchioles*. These small air spaces are almost as impervious to germs as the wad of cotton with which we stop our test-tubes.

Vinay describes a case of pneumo-thorax which originated in the rupture of the respiratory tract into a pleura upon the patient's rising from his bed. It healed without any inflammation or effusion and the temporary loss of function was removed in about two months. This case shows how perfectly the healthy lung filters the air which passes through it. Similar results in pneumo-thorax are noticed when they result from stabs and gunshot wounds of the lung. So the pleuræ are much less liable than the peritoneum to infection, and, therefore, natural selection has not guaranteed the same germicidal power in the pleural surfaces which we find in the peritoneum. For the same reason the pericardium being still farther removed from the possibility of infection, it is, therefore, still less tolerant when infected.

One of the causes which determines the localization of infection anywhere is an antecedent infection and coincident saturation of the germicidal power of the part and of the blood nourishing it.

Too little attention has been paid to the destructive power of the blood upon microöganisms. Allow me to recount in the briefest manner the experiments of Buchner and Netter, as well as those of Prudden. These investigators found that blood drawn from the living animal was able in two hours to destroy as many as 4,950 anthrax bacilli out of 5000 mixed with each cubic centimeter of blood. It seems still stranger that the germicidal action was manifested in almost as great a degree in the defibrinated blood and in the serum alone. This germicidal action rapidly disappeared until after five hours the remaining germs began to multiply and the blood or blood serum then furnished the best possible culture material.

One of the causes, then, which undermines the localization of infection is an antecedent infection and a coincident saturation of, or exhaustion of this germicidal power of the blood. In the infection of the pleura with pus microbes, this is a prime essential. Suppurative disease rarely takes place in the pleura without a previous general septicæmia with some such parasite as the pneumo-coccus, the malarial plasmodeum, the parasite of influenza, or one of the other infectious diseases. This coincident septicæmia and consequent saturation of the germicidal power of the blood, account for a *diminished physiological resistance*, always small in the pleura (as we have already seen). It is *still* necessary to account for the presence of the pyogenic bacteria. Because this subject has not been adequately studied experimentally, it is possible only to conjecture the source of infection from analogous cases. In many cases of pleuritis, there is an extensive or limited pneumonia. In this pneumonic area, as time goes on, the bronchioles become infected to a greater or less depth, with the pyogenic bacteria which are always present in the air we breathe, and therefore in the larger bronchi. The œdema surrounding the bronchioles in the pneumonic area block the normal course of the lymphatics toward the hylus of the lung, and the current from active congestion turns in the direction of the periphery of the lung and the pleural cavity. For

a time the effused fluid is germ-free and is absorbed by the still healthy pleura over the unaffected portion of the lung and the parietes. In a series of experiments upon rabbits, undertaken by Fleiner, it is shown that fluids (blood and fluids holding coloring matter in suspension) injected into the pleural cavities are readily absorbed, and that the corpuscular elements or color granules are easily recognized in the mediastinal lymph glands. It seems that normal respiratory movements are necessary for this transfer of matter. This absorption, however, reaches a limit when the effused serum carries with it also *so* large a quantity of infectious germs *that* corresponding pathological changes take place in the absorbing pleura. Its epithelium becomes swollen, and multiplies imperfectly. Its normal physiological action is suspended; the whole pleural surface becomes the seat of suppuration. *A true empyema supervenes.* It is not to be supposed that under conditions of health the pleura is unable to resist a moderate amount of pyogenic infection for a moderately long time. When the lung and the whole circulation is suffering from malarial, pneumo-coccus, or other forms of infection, the first serum effused contains one of these pathogenic germs. This, many bacteriological experiments have demonstrated. The antecedent infection is responsible for the low vitality of the pleural surfaces and for the want of germicidal power in the effused serum itself.

From the investigations of Kracht it would appear that microörganisms are absent in simple serous effusions. Those found in purulent or fibrino purulent pleuritis are not specific for the empyema, but point to a whole series of concomitant inflammations. Empyema only appears when the pleura is so injured or its cavity contains such a fluid that a suitable soil is present for the multiplication of pus cocci. Kracht experimented upon rabbits with a view of demonstrating the origin of empyema. He injected pus bacteria into the pleural cavity, and saw no injury result, but, when mixed with a large quantity of water or ptomaines pleuritis resulted.

In the same manner, tubercular effusions in the pleural cavities become infected from suppurative bronchitis with the pus microbes and a true empyema follows a tubercular effusion.

In these cases some of the most mournful errors have been made in the diagnosis. The physical signs and even the examination of the sputa have confirmed the diagnosis of tuberculosis. The patient has been pursuing a quiet and fairly satisfactory existence when, suddenly, chills, pain, fever and hectic appears. The examination of the chest does not discover more than increased consolidation but as time passes on, a considerable amount of pus may be discharged by the mouth, as a post-mortem examination may disclose a circumscribed empyema.

There are instances in which coagulation takes place in the effused serum, and larger or smaller clots resembling white thrombi fill the space between the pleuræ. If the effusion takes place very rapidly, it may contain red blood corpuscles, and these again may be found in the clots. The cavity may be so filled with these fibrinous masses as to resemble a sponge. After the absorption of the serum, the solid portions of the effusion may be left behind and give rise to anomalous physical signs. When such a pleuritis becomes suppurative it is difficult to drain and it is wholly insusceptible to treatment by aspiration.

The indications for operating in cases of empyema depend *very largely* on the character of the infection. It may be stated in general terms that the serous pleuritic effusion is from the nature of the origin of effusions charged with the primary infective material; thus; in specific pneumonia, with the pneumo-coccus; in malaria, measles and influenza, with the organism which gives rise to the pneumonias of these diseases. These infective materials are incapable of producing suppuration under any circumstances, and their infective powers are limited in destructiveness and in time. Such serous effusions are ultimately completely absorbed without any loss of function in the parts concerned.

Suppurative empyema is due, as a rule, to the pyogenic staphylococci or streptococcus. A great number of investigators have found these alone or mixed with the infective parasite of the primary disease. It matters little which one of the pyogenic bacteria is the originator of the suppuration. It is in any case essentially progressive and destructive; there is only the remotest hope of the absorption of the pus. Two methods of termination have been observed. The pus has either been discharged through the thoracic walls or into the respiratory passages.

Beside the non-destructive pleuritic infection and suppurative pleuritis or true pyothorax, there remains one other important pathological and clinical manifestation of pleuritis, that is tubercular pleuritis.

Tubercular empyema may follow the perforation into the pleural cavity of a tubercular peripleuritic abscess going out from a tubercular osteitis in one of the ribs or vertebræ, or from a tubercular mediastinal lymph gland, and pyogenic empyema may arise from true pus cavities in the same localities.

Many authors have held that the presence of pleuritis without traumatism, is *primae facie* evidence of tuberculosis, but this Dr. A. A. Smith[1] has shown from careful clinical observation followed in many cases by post-mortem examination, is not supported by the carefully considered facts. Pyæmic pleuritis occurs in the course of osteo-myelitis, carbuncle and other suppurative

[1] Medical News, July 9, 1890.

diseases, and usually has the staphylococcus pyogenes aureus in the exudate. The streptococcus pyogenes is usually found in those cases which occur in puerperal sepsis or wound diseases. In tubercular pleuritis the tubercle bacillus is found only with difficulty. Tubercular pleuritis originates from infection of the pleura from neighboring tubercular organs, and principally from tubercular foci in the lungs. While it has been observed without other antecedent forms of pneumonia it is prone to follow non-tubercular and non-suppurative disease.

True or pyogenic empyema may arise from the puncture of the pleural cavity with an infected instrument. It was occasionally declared before the antiseptic period, and even well into it, that thoracentesis was followed, as a rule, by suppuration. This is denied by the methods and practice of modern operators. It does, however, occasionally occur. Gunshot wounds and stabs with sharp instruments without perforation of the lung and without pneumo-thorax is occasionally, if not as a rule, followed by suppurative pleuritis. That the perforation of the lung and consequent pneumo-thorax is not invariably followed by infection of the cavity is due to the germ-free condition of the air which has traversed for some distance through the moist bronchioles.

It must be remembered that in cases of pyæmia, pyothorax may arise and is to be accounted for in the same manner as in other forms of sepsis.

Marfau reduces the forms of empyema etiologically into three categories: 1. Those that follow pneumonia and are characterized by the presence of the pneumococcus in the exudate; 2. Those that occur in the course of pyæmia and contain the staphylococcus or the streptococcus; 3. Those that follow tuberculosis and contain the tubercle bacillus. The indications for operation, depending on the quantity of effusion, differ in respect to urgency the same in all kinds of empyema. Thus the effusion may be so great that it diminishes the lung capacity beyond the limit of existence. Life may thus be threatened in a one-sided effusion of such extent that it encroaches upon the cavity of the other lung, or when the opposite lung is already useless from pneumonia or other causes. In such cases the effusion must be immediately removed on account of its mechanical danger to life. The same may be said of such cases as are complicated by great interference with the circulation of the blood. Effusions, of even small extent, in both pleural cavities become dangerous, especially when complicated with pneumonia or bronchitis.

I will attempt here to demonstrate the action of a considerable effusion in one of the pleural cavities of a dog. In order that the circulatory complications may be at a minimum, I will use the right cavity. This I will fill by inserting this canula between the fourth and fifth rib and midway between the sternum and spine. A considerable quantity of warm water flows into the cavity with great rapidity, and by raising the percolator a still larger quantity flows into the thorax, compressing the lung and pressing the mediastinum over the left side, diminishing the capacity of the left lung. This is manifest in the rapid breathing and the rapid and irregular pulse.

Such an interference with the function of the lung calls for immediate evacuation of the fluid without regard to the nature of the fluid or the character of the coincident inflammation.

There is another less urgent, but not less positive, indication for operation in those cases of effusion which are infected with pyogenic bacteria. It matters not what the original effusion may have been, or what the condition of the patient may be in other respects, the presence of a suppurative disease in the pleural cavity, or in both of them, is a positive indication for immediate and *permanent* removal. The suppurative disease is progressive and destructive, and never terminates favorably except in drainage and cicatrization of the suppurating surfaces, and closure of the cavity. The temporary or interrupted drainage of the pleura is not adequate in such cases, and cannot meet the positive indication.

The treatment of tubercular effusions into the pleural cavity may be stated in almost as positive terms. It is assumed that the tubercular infection is unmixed with suppurative disease. The *locus* of tubercular disease is assumed to be in the lung and beyond the power of the operator to remove. The effusion is not usually large, and is apt to be circumscribed by adhesions. The wall of the cavity is covered by tubercular granulation tissue and is sometimes found little more than a tortuous tubercular channel. Drainage by free incision is followed sooner or later (and in spite of the most careful antiseptic treatment), by pyogenic infection of the tubercular tract, and, when the opening begins to close, by symptoms of sepsis. Neither simple incision and antiseptic irrigation nor the excision of a portion of a rib and *evidement* of the cavity is followed by a speedy recovery. The tubercular disease in the other part of the thorax is apt to speedily carry off the patient. It may be said that there is no positive contra-indication to operation on tubercular empyemas, and that they may be operated on when there is any special indication. This special indication may be found in the size of the cavity, in the accessibility of the original focus, or in the otherwise healthy condition of the patient. That the drainage of tubercular pleuras should not be undertaken with any favorable prognosis, except in the young, and when these follow tubercular disease in an accessible bone or other part and is not accompanied by an extensive disease in other parts of the thorax, passes without saying.

In removing pleuritic effusions a great obstacle is met in the contactility of the lung and its tendency to immediately collapse and retract to the upper and posterior part of the thorax under the pressure of the atmosphere. This is a difficulty nowhere else met with, and one which has long been looked upon as sufficient to interdict the opening of the pleural cavity under any circumstance. This is termed the elasticity of the lung, and it has been estimated by Hutchinson to be equal to one-half pound to the square inch. The pleural cavity may be opened into a partial vacuum and the collapse thus avoided, or the function of a single lung may be dispensed with. Thus we have two principal methods of draining the pleuræ—the one into a vacuum, and the other against a full atmospheric pressure.

I shall attempt to show you with the animal before us just how great is the contractile power of the lung of the living dog. Taking the percolator down and placing it some inches below the canula, the fluid flows rapidly from the thorax into the percolator as is indicated by the height of the water in that vessel and by the greater ease in respiration which the dog manifests. Fourteen inches is $\frac{1}{2}\frac{1}{4}$ of 348 inches or $\frac{1}{2}\frac{1}{4}$ of an atmosphere, which corresponds very well with the estimation of Hutchinson for the human lung.

Of all the methods of removing a pleuritic liquid effusion, that originally proposed by Stanski is the simplest and attended with the fewest dangers. This is the aspiration with a small trocar which has come so much in vogue since the perfection of the apparatus. For effusions which are infected with microörganisms of a non-destructive character, and for those effusions which are removed solely on account of their extent, it is the most serviceable and desirable method. It is not to be used in cases of pyogenic infection with the hope of effecting an arrest of the destructive disease. However, when so modified as to be used continuously it may be of the greatest advantage to those adults who can have the necessary attention from skilled nurses or physicians, and when it is instituted early enough to preserve the elasticity of the lung. When advantage is taken of the weight of a column of antiseptic solution for the aspirator this becomes the recently much lauded method of Buelau. Whether it can be depended upon for the complete removal of the products of suppurative pleuritis, experience has not yet adequately demonstrated. It seems to promise the most favorable results when instituted early and so vigorously as to remove nearly all the effusion, and, at the same time, bring the granulating pulmonary and parietal pleural surfaces together and secure a rapid obliteration of the cavity. It would accomplish enough if it would do this and limit the effusion to a small cavity, which could be afterwards drained by incision. It is the only method which can be used in bilateral pleurisies of great extent. It commends itself to the patient as a less formidable operation than incision or rib-resection, and would, therefore, be likely to be undertaken early. With a proper apparatus to be made from any exploring aspirator and a long rubber tube, it is within the reach of every physician, and the difficulties and dangers of thoracentesis with constant aspiration are not great. The feeding of the siphon with an antiseptic solution on the principle of a Sprengel pump, as here proposed, may be found to be a safeguard in filling the tube which might become clogged or full of gases.

The following method is employed by Fürbinger in such cases of pleuritic exudations as are of long standing, and with little pressure. He takes advantage of the sucking power of the mouth to remove the fluid. A glass tube entering the bottom of an irrigator bottle is connected with the trocar by means of a rubber tube. Another tube from the top of the bottle is used as an exhausting tube.

I will try to evacuate the air which has purposely been allowed to enter this dog's pleura. The percolator is hung up three or four feet above the dog's body. An aspirator needle having a calibre of about a millimetre is now put on the end of the delivery tube. This needle is thrust into the rubber tube which connects the canula in the thorax with the basin below, and it is pointed downwards. As soon as the fluid is allowed to flow from the percolator it fills the waste tube, and the weight of this column of water aspirates the air from the thorax and may be seen escaping in bubbles from the end of the tube. Percussion over the lung now demonstrates the absence of air in the thorax and the presence of the expanded lung. The only remaining method of treatment consists in free incision and drainage. This is accomplished in a number of ways.

An incision is made in the axillary line and at the upper border of a rib into the centre of the effusion. The finger is passed into the incision and any information gained which the palpation affords. A rubber or other drainage tube is passed on the finger or forceps into the cavity and placed in the most advantageous position for drainage. The cavity may or may not now be washed out with a warm antiseptic solution and carefully dressed. This antiseptic irrigation and dressing are to be repeated every day with the most conscientious care and scrupulous antiseptic precautions. At the end of a week or two the discharge of pus will be found to have disappeared. Then if the method of Professor Quine and Bouvert is to be followed a still more careful antiseptic irrigation is to be employed, and the tube removed entirely, and the hole in the side stopped with a stick of iodoform. The dressing is left on for

two weeks or more, and the air and other contents of the cavity left to be absorbed by the now clean and healthy pleura. There is no reason why this should not fill all the indications of any operation, viz.: First, to evacuate the pus. Second, to prevent the production of more purulent matter, and third, to restore the respiratory apparatus to its normal condition. I must admit that while there is no reason to think that the pleural cavity may not thus be sterilized, our experience has been so unfortunate that until Professor Quine reported his cases it had not been regularly practiced.

At the German Congress for Internal Medicine referred to, Mosler alone advocated simple incision and drainage. The treatment most favorably received there was Buelau's method and the subperiosteal excision of a rib and drainage without antiseptic irrigation.

As to the site of operation, it must be admitted that a great many mistakes have been made both by writers and operators, and Godlee alone has put the matter exactly. The retraction of the diaphragm is more rapid than the retraction of the lung, and the opening into the thorax should be at least as high as the centre of the effusion in all cases in which drainage is made against the atmosphere. In case drainage is made into a vacuum after the manner of Buelau, the locality of the fissure between the lobes of the lung presents some obvious advantages. Dr. Marshall's muscle-free spot is certainly too far forward. The drainage can be better accomplished in the axillary line notwithstanding the amount of muscle and fascia.

The second method of drainage against the full atmospheric pressure is incision, counter-incision and through and through drainage. This method certainly secures better drainage and gives an opportunity for irrigation without danger of distending the cavity and interfering with the retraction of the lung. It hardly offers the best means of restoring the respiratory organs to their normal condition. It is the method which would be least likely to be received by the patient, and it has few advocates except in England.

The subperiosteal excision of a large portion of a rib and the drainage of the cavity by one or more tubes through the defect thus established. This is the method to be used in all cases which cannot have the care of a skilled nurse and the care of a careful and scrupulous physician. The drainage is established in the most comprehensive manner and is accompanied by the fewest dangers. It is the method best adapted to those cases that must take care of themselves.

Through and through drainage and insufflation of dry air. This method offers the same advantages as perrigation, with the advantage of scab formation and destruction of the infection by desiccation.

The perflation of air has also (1866) been practiced by Roser, and later, combined with antiseptic liquid irrigation, by Quincke, and by Ewart and Fitzroy.

When pyogenic and non-tubercular empyemas are treated by any one of the preceding methods early in their formation, there is the greatest hope of a restoration of the functions of the respiratory apparatus to its integrity. When treatment is inadequate to meet the indications, or when it is delayed, such serious changes take place in the thorax that new indications arise. Thus spontaneous discharge of the pus may take place through the bronchi, and the cavity formerly filled with pus will come to be occupied with pus and air. If the cavity is small, or favorably situated, it may drain sufficiently into the bronchus to close, and recovery will be nearly perfect. Again, if drainage is not instituted early in the course of the disease, the lung will be pressed back and up and adhesions will be formed between the walls of the thorax, and the collapsed and shrunken lung, which will prevent its ever being able to fill the pleural cavity again. This compression, with coincident infection, may result in gangrene of the lung and in the invasion of the empyemic fluid and the dead tissues by saprophytic bacteria and other organisms, and the production of a complicating sepsis of a grave nature. This invasion takes place from the bronchial tubes, which are always filled with saprophytic bacteria and other putrefactive organisms.

When such adhesions or such destruction has taken place before the case comes to treatment, or when the methods instituted have been inadequate to close the cavity entirely, it may be necessary to depress the thoracic wall so that it will come in contact with the surface of the collapsed lung. This is done by the excision of a sufficient number and extent of ribs to meet the indication. (Estlander.)

This review of the etiology of pyothorax makes it possible to formulate the following positive indications for operation:

1. Serous effusions must be removed whenever they interfere with respiration or circulation by their extent, or when they show a tendency to remain after recovery from the primary disease which gave rise to their presence. The aspirator may be found sufficient in these cases, but when inadequate after repeated trials, one of the more radical and permanent methods of drainage must be resorted to.

2. Pyogenic and tubercular effusions of large size or of small size must be immediately and permanently drained.

3. Drainage into a vacuum must be practiced in all cases of bilateral effusion without adhesive limitation, and in those cases of unilateral effusion in which the opposite lung is so incapacitated as to be inadequate for respiration. It may be

practiced in all cases in which the expansibility of the lung is intact and the patient can have skilled attention. It will be found of the greatest value in limiting the extent of the empyemic cavity, which may be afterward drained against the atmosphere.

4. Intercostal incision and antiseptic irrigation of the cavity to a point reaching a practically aseptic condition of the same, and permanent closure of the incision, is indicated when the expansibility of the lung is intact and the skill of the operator is sufficient.

5. Rib resection and thorough drainage should be practiced in all cases of tubercular effusion, and pyogenic effusions which are not treated early, or those occurring in patients who cannot have the best of care.

6. Operation must never be delayed on account of the extreme condition of the patient, nor on account of the presence of tuberculosis in one or both lungs, nor on account of the presence of pneumonia on the same side. All of these conditions are additional indications for radical operation.

PROPOSED MEDICAL LEGISLATION.

BY HENRY A. RILEY, ESQ.,
OF NEW YORK.

The Legislatures of many of the States are now in session, and in most of them measures have been proposed, of more or less importance, affecting medical practice or public health. It is difficult to present a full statement of all these bills, but the substance of many of them has been published in the daily papers and will be of interest.

In New York the principal bills are the following: One removing the pauper insane from the county poorhouses and transferring them to the State Asylums. This involves the expenditure of about $500,000 for a new building to accommodate the new patients, and has been actively opposed by local officials who have found some pecuniary or other advantage in keeping the insane in the poorhouses, which are badly adapted for the care of such patients. The general sentiment of the profession and of humane persons is strongly in favor of the bill, and it has within the last few days received the Governor's signature and become a law. Another measure of great, though local, importance requires the appointment of matrons at the police stations in New York City, to care for women who may be arrested or apply for shelter. This bill, appealing as it does to the sentiments of humanity and decency, has also just become a law. Another measure of general importance provides for a Park in the Adirondacks for the purpose of preserving the forests from destruction, and conserving the water supply at the sources of the Hudson. The plans proposed involve the expenditure of not far from $3,000,000, and while the Legislature will not appropriate so large a sum, it is probable that a beginning will be made, and the State committed to the sound policy of preserving its forest area.

In Connecticut a bill has been prepared to regulate the practice of medicine, and this provides for education at reputable institutions and the possession of diplomas by all practitioners residing in the State. Examinations by medical boards will also be required.

In Pennsylvania there are two measures providing for the regulation of medical practice—one emanating from the Allopathic school and one from the Homœopathic. The first provides for a Board of Examiners consisting of nine members, who shall have been in active practice for not less than ten years. The term of office is for three years. Not more than one shall be appointed from the same county, and none shall be a member of the faculty or staff of any medical school or college. The applicants shall be examined in anatomy, physiology, chemistry, toxicology, pathology, hygiene, materia medica and therapeutics, principles of medicine, surgery and obstetrics. Any candidate for examination may choose the system of materia medica and therapeutics in which he or she shall be examined, and no one shall be rejected on account of adherence to any school of practice. The bill proposed by the Homœopathic Medical Society is similar in some points, but quite different in others. The Board of Examiners is to consist of nine members, who must have been in practice for five years, and the term of office is six years. The Board shall have power to fix the grade of preliminary education required of all students entering a medical college, and shall also establish the minimum curriculum in medical schools, and the length of the course of studies requisite to graduation. The course of instruction shall not be less than four years. The Board shall inquire into the fitness to practice of graduates of any college having a lower standard than that required by the Board of State institutions. The main point of difference in the two bills is that the one proposed by the Allopathic school vests the appointment of the members of the Board in the Governor without prescribing the school to which they shall belong, and one of the State medical journals says that the different schools ought to be represented according to their relative numbers in the State. The bill of the Homœopathic school requires the Governor to appoint equally from lists presented to him by the Allopathic, Homœopathic and Eclectic Societies of the State.

In Michigan no special legislation regarding medical practice is reported, but it is said that the Governor advises the abolition of the State Board of Health and that the Legislature may adopt the

suggestion. This would certainly be a retrograde step, and would no doubt be a cause for subsequent regret.

In Maine the State Health Board has introduced a bill providing for the registration of vital statistics. It is rather strange that so important a matter as this should not have been already under legal sanction. The official record of births, marriages and deaths, arranged in such a manner as to be thoroughly reliable and readily accessible, is held by most civilized communities to be a prime necessity, and no doubt the lack of such a record has caused already great inconvenience in Maine.

In Missouri there is a bill requiring all medical colleges in the State to adopt three courses of lectures as a condition for graduation. Most of the colleges are said to favor the measure, and certainly the requirement is small enough if other States are considering the matter of requiring four years of study, before granting a diploma. Another measure pending in the Missouri Legislature touches on the regulation of prostitution. The provisions are modeled after the German laws on the subject.

In Illinois the State Board of Health, by virtue of legislation already enacted, has decided that it will not recognize a foreign diploma which does not confer upon its holder the right to practice medicine in the country in which it was granted. The holder of an Austrian, a German, Russian or Swiss diploma wishing to practice in Illinois, must hereafter pass an examination before the Board, unless he have a pass certificate from a Government examining commission. The holder of a Canadian diploma, unless a licentiate of the College of Physicians and Surgeons of Ontario and Quebec, must pass an examination in order to be licensed in Illinois.

In Oregon a bill has been introduced regulating medical practice, and part of it touches on medical ethics, and provides for the revocation of licenses in case of unprofessional conduct. The acts which will cause a revocation are as follows: *First*, the procuring, or aiding and abetting in procuring a criminal abortion. *Second*, The employing of what are known as cappers or steerers. *Third*, the obtaining of any fee on the assurance that a manifestly incurable disease can be permanently cured. *Fourth*, the wilful betraying of a professional secret. *Fifth*, all advertising of medical business in which untruthful and improbable statements are made. *Sixth*, all advertising of any medicine or of any means whereby the monthly periods of women can be regulated, or the menses reëstablished if suppressed. *Seventh*, conviction of any offense involving moral turpitude. *Eighth*, habitual intemperance.

In California there is a proposed measure for regulating the practice of medicine. It establishes a State Board of Medical Examiners, consisting of seven members, who are to be appointed by the Governor. One member is to be appointed from each of the well-established medical schools, and the others are at large.

Probably a number of other States are contemplating legislation somewhat along the lines of the bills mentioned above, but no statement of such legislation has been noticed in the public journals.

A statement will be made in these columns, after the adjournment of the Legislatures, of the measures which actually became laws.

MEDICAL PROGRESS.

Therapeutics and Pharmacology.

TREATMENT OF ICTERUS WITH TURPENTINE.—CARREAU (*La Semaine Médicale*, March 11, 1891) recommends the use of large doses of ozonized turpentine in the treatment of grave forms of jaundice. It is administered in the form of capsules, as many as sixty being given in the first thirty-six hours. In case of obstinate vomiting in which the stomach rejects the capsules, the drug may be administered hypodermically, the following mixture being employed: Essence of ozonized turpentine (*Codex Francaise*) 10 grams, liquid vaseline 50 grams. In one case of grave icterus, attended with fever, the writer employed twenty-three injections in thirty-six hours. The symptoms rapidly improved, and at the end of a few days the patient was convalescent.

TREATMENT OF ERYSIPELAS WITH GLYCEROLE OF SALICYLATE OF SODIUM.—DR. S. C. INGLESSIS (*La Semaine Médicale*, March 4, 1891) has employed a solution of salicylate of sodium, in glycerine, in the treatment of erysipelas. The solution should have a strength of from 4 to 6 per centum and be used each four or six hours, the affected part being protected with a layer of cotton. At the same time, in the absence of heart weakness, or albuminuria, salicylate of sodium is given internally, about two grams in each twenty-four hours.

The writer has treated thirty-six cases by this method, and notes favorable results. The application immediately lessens the pain and discharge, and shortens the disease.

Medicine.

ADDITIONAL OBSERVATIONS UPON CANTHARIDIN.—At the meeting of the Berlin Medical Society, held March 4 (*La Semaine Médicale*), SAALFELD presented a patient suffering from lupus who had been treated by injections of the alkaline solution of cantharidin. The ulcerating lupus had become flat, pale, and was apparently disappearing. The Landgraf had injected the

solution in a series of cases affected with acute laryngeal troubles, but had not noted any results. In nine patients with chronic trouble he had come to the following conclusions: That the remedy caused an œdema of the mucous membrane, expectoration was facilitated, the redness of the vocal cords diminished. He absolutely ignored the question of the remedy producing a cure. Lublinski had observed after the injections pain and strangury, but neither albuminuria nor hæmaturia. Expectoration was facilitated and ulcerations contracted and healed. A patient affected with laryngeal and pulmonary phthisis, and presenting a lupus on the back of the hand, was markedly relieved by the injections. Fränkel had not observed a case of perfect recovery from the injections. Since his last communication he had seen several cases of albuminuria, so that he now examined the urine after each injection.

Surgery.

SURGICAL TREATMENT OF PULMONARY CAVITIES.—The bold endeavor to radically attack phthisical cavities and drain them, although introduced some years ago, has been lately receiving fresh advocacy, especially in relation to the treatment of phthisis by Koch's "tuberculin." Many of the dangers of this remedy in advanced cases of phthisis rest upon the retention of necrotic material within the lung, and the liability to its being inhaled into previously unaffected areas. Dr. Sonnenberg recently operated upon four cases undergoing this treatment, and Dr. E. Leser of Halle reports two more. One of these was a female aged 43, who had had symptoms for four years, and presented physical signs of excavation at the left apex. The operation consisted in making an incision in the first intercostal space, 7 centimetres long, and, after dividing the muscles and securing blood-vessels, introducing a trocar in the direction of the cavity. Although no fluid could be obtained, it was evident that the point of the trocar was in the cavity, and the pleuræ being firmly adherent, an aperture was bored through the layer of tissue overlying the cavity by means of a Paquelin's cautery, the trocar being taken as a guide. The cavity was the size of an apple, had somewhat irregular walls, and was coated with flakes of inspissated pus and caseous matter; these were removed, and the cavity stuffed with antiseptic gauze. Subsequently the patient was injected with Koch's "tuberculin," which always caused increased discharge from the cavity; and later still some of the fluid was directly introduced into the cavity itself. At the last report the patient had improved much in general health, and the cavity had dwindled to one-half its former size. The second case, a man aged 42, was similar, except that in him the cavity was no larger than a chestnut, and was situated at the right apex. Here, too, the use of tuberculin produced increased discharge, and on one occasion its injection into the cavity was followed by severe vomiting, dyspnœa, and other alarming symptoms. Dr. Leser, however, thinks this mode of treatment has a future before it. At present he would make it a *sine quâ non* that the costal and pulmonary pleuræ should be firmly united, as they usually are when cavities are of some standing, and he enters fully into the technique of the operation, laying stress upon having a fairly large incision through the thoracic wall, but not a very large aperture made in the lung, since this will be sure to increase by sloughing. The notable feature of these cases seems to be the immediate relief to cough and expectoration given by the external opening, although, when the injections are resorted to, the secretion becomes so much more abundant.—*The Lancet.*

EXPERIMENTS TO DETERMINE THE CENTRE OF RESPIRATION.—DR. LABORDE communicates to the Comptes Rendus de la Société de Biologie the results of experiments made by him to ascertain the nerve centre for respiration, promising a larger work at some future time. He found that superficial mechanical injury to the region of the alæ cineræ does not accelerate respiration; a deep puncture decreases, or even temporarily arrests, respiration; if the injury penetrates at least to the middle of the substance, respiration may cease altogether. This result is always obtained if a certain circumscribed portion of the substance is cauterized with the hot iron. This portion need in the rabbit be only half a millimetre in diameter, in the dog from one to two millimetres. The iron must, however, enter immediately above the apex calami, and must penetrate at least half the substance from the raphe. If the injury is unilateral, respiration may continue for some little time on the opposite side. Total separation of the medulla below the apex calami always arrests respiration of the trunk, while that of the head continues for some time. Spinal reflexes continue, and even increase; irregular superficial contractions of the respiratory muscles, leading to no results, may be observed. The increase of the reflex action is especially remarkable in newborn animals. No parts of the brain above the medulla oblongata, including the cortex, the corpora quadrigemina, and thalama optici, have any specific influence whatever on the respiratory muscles.—*The Lancet.*

Bacteriology.

ETIOLOGY OF GROUSE DISEASE.—PROFESSOR E. KLEIN (*Cent. f. Bak. Parasitenk.*) finds that the bacillus of the grouse disease as it occurs in autumn is not nearly so virulent as that obtained from the disease during the spring months, the bacilli being obtained from the heart blood in the autumn and from the lungs in the spring.

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SATURDAY, APRIL 4, 1891.

KOCH'S TUBERCULIN IN PULMONARY TUBERCULOSIS.

As we continue to receive letters from physicians in different parts of the country anxiously inquiring how and where they can obtain Koch's Lymph or *Tuberculin* with which to treat some of their consumptive patients, we think it proper to call the attention of all general practitioners to the present status of the Koch treatment, particularly in relation to pulmonary tuberculosis. And we would remind all inquirers that we know of no mode of obtaining a supply of the *Tuberculin*, except by application to Koch's laboratory in Berlin, Prussia. There is none in the drug market of this or any other country, and no one outside of Koch's laboratory knows how it is made, or precisely what its active ingredients are. The authorities at Berlin simply authorized the remedy to be furnished in limited quantities to be used in hospitals where the patients could be kept under constant observation, and reliable record made of the results. Under this regulation it has been obtained and used with the utmost care in many of the hospitals in the different countries of Europe, and in the chief cities of this country during the last three or four months. The results have been faithfully reported from week to week in the leading medical journals of this and other countries.

It has been used chiefly in cases of lupus and tuberculous affections of the external lymphatic glands, bones and joints, and in a large number of cases of pulmonary tuberculosis. It has also been used in a limited number of cases of cancer and lepra, but generally with negative results. A careful review of all these reports seems to justify the following summary of results at this stage of the investigation:

First, The remedy when used in the manner and in the doses advised by DR. KOCH, has in most instances affected the human system in the manner claimed by him; although the febrile reactions have varied very much in different cases and sometimes at different times in the same patient, both in regard to intensity and duration. The effect of the remedy on tubercular tissue has also been adundantly demonstrated, especially in lupus and such tubercular cases as admitted of free external drainage; while the numerous post-mortem examinations by VIRCHOW and others show, not only the same necrotic effect upon the tubercular tissue of the lungs and other internal tissues, but also the rapid diffusion of the bacilli in the blood and tissues previously unaffected.

Second, In perhaps two-thirds of the cases of lupus and such tuberculous joints and glands as have free external openings, the injections of *Tuberculin* have been followed by marked improvement and in from three to six weeks some of them have appeared nearly well, while in many cases tolerance to the remedy was soon acquired and improvement ceased. In the remaining third of this class of cases no improvement was obtained and some of them were made worse. One girl, 17 years of age, with lupus of the face, received a single injection of two milligrams, which was followed by violent febrile reaction and death in about thirty-six hours.

In some of the early cases that were reported as nearly or quite well, the disease has since returned with as much activity as before, thus showing that even in the most favorable cases the curative effects of the remedy may prove only temporary.

Third, The number of cases of pulmonary tuberculosis that have now been treated with *Tuberculin* aggregates many hundreds. A large majority of them have been described as in the early stage of the disease, *i. e.*, before the softening or disintegration of tubercular masses, or the formation of cavities in the lungs. A much smaller number presented the physical signs of some suppuration or small cavities; while a still smaller number were plainly in the advanced

stage of the disease. In the two groups of cases last mentioned, the *Tuberculin* treatment has pretty uniformly accelerated the progress towards a fatal result.

In the first group named, supposed to contain only cases in the early stage of pulmonary tubercular disease, the first effect of the *Tuberculin* injections has pretty uniformly been more or less temporary febrile reaction followed by increased cough with marked increase of expectoration containing a greater number of bacilli. In a considerable number of these cases a continuance of the treatment was attended by diminished febrile reactions and decidedly less expectoration with moderate general improvement until apparent immunity or tolerance to the further action of the remedy was acquired by the patient. But in no case did the physical signs of the tubercular disease in the lungs disappear, and after an intermission of ten days or more in the treatment, some of the patients were again found susceptible to the action of the remedy. Consequently we have not yet found a single case of pulmonary tuberculosis in which the remedy could be regarded as having effected a complete cure. In a large proportion of the cases treated in the early stage of the disease, instead of even temporary improvement, the progress of the disease has been accelerated, accompanied, in some, by hæmorrhage, in others by rapid formation of cavities, and in a few by the appearance of albumen in the urine.

Fourth, The foregoing results sufficiently demonstrate that the *Tuberculin* manufactured in Berlin is an exceedingly active poison, possessing a special affinity for tissues affected with tuberculosis, and capable of causing necrosis or rapid disintegration of such tissue in every part of the living body, and consequently its use as an internal remedy will always involve more or less danger to the welfare of the patient.

If the foregoing summary of results thus far obtained is correct, it is obvious that the use of the *Tuberculin* should be restricted to such cases of tubercular disease as are on the surface or have free communication therewith; and the general practitioner should abandon all idea of using it in cases of tuberculosis of the lungs or any of the internal viscera.

ON THE SIGN CALLED "TRACHEAL TUGGING," IN THORACIC ANEURISM.

DR. R. L. MACDONNELL, of the Montreal General Hospital, relates in *The Lancet*, March 7, the clinical aspects of seventeen cases of thoracic disease where "tracheal tugging" was recorded. This sign was first brought forward in 1878, by SURGEON-MAJOR W. S. OLIVER, in *The Lancet*, and his account of it has since been republished in only two text-books, so far as is at present known. In the original publication, the writer suggested the following procedure in the diagnosis of thoracic aneurism: "As the diagnosis of thoracic aneurism of the aorta is often difficult and obscure, notwithstanding the various means we have at our disposal for detecting it, I am desirous of mentioning a method of examination which has afforded me material assistance in diagnosing this disease—or even simple dilatation of the vessel—when it occurs, as is most generally the case, either in the ascending or first part of the transverse portion of the arch; the process is as follows: Place the patient in the erect position, and direct him to close his mouth and elevate his chin to the fullest extent, then grasp the cricoid cartilage between the thumb and finger, and use gentle upward pressure on it, when, if dilatation or aneurism exist, the pulsation of the aorta will be distinctly felt transmitted through the trachea to the hand. The act of examination will increase laryngeal distress should this accompany the disease.

The application of this method of examination has been in vogue in the wards of Montreal Hospital for twelve years, and the sign has come to be known as "tracheal tugging." Its great importance was early recognized by DR. GEORGE ROSS, who in his clinical teaching and published reports of aneurismal cases has been careful to note the presence or absence of tracheal tug. It has always been found to be a reliable sign of aneurism of the transverse arch, and in one case, at least, it was the only positive sign present of an aneurism, whose existence was made manifest subsequently by other signs and symptoms. Where the aneurism is deep-seated and is in contact at all with either the trachea or one of its principal subdivisions there will be a very distinct and unmistakable tugging downward of the cricoid cartilage with each cardiac systole. In some cases the movements of the box of the larynx

have been so well-marked that the pulse could be counted by simply placing the tip of the forefinger upon the pomum Adami, and making a slight pressure upwards. One other condition may possibly be mistaken for that under consideration, but a little care will exclude the chance of error: this is when the heart is acting strongly, or when aortic incompetence is present, and so acting as to convey to the fingers, from the adjacent carotids, a considerable amount of rhythmical pulsation. But this will be noted as something different from the downward tugging of the aneurismal sign. DR. MACDONNELL formulates two propositions from his clinical experience, and that of his colleagues at the Montreal Hospital: 1. Tracheal tugging is never present except in aneurism. 2. When tracheal tugging is present the aneurism is so situated as to press from above downwards on the left bronchus, or on that portion of the trachea that is immediately adjacent to it. Of the twenty-five cases in which this phenomenon was examined for and recorded as present or absent, twenty-three were from the hospital, and two were from private practice. In seventeen cases the sign was found. In eight an autopsy was obtained.

SANITARY UNDERTAKING.

The State Board of Health of Pennsylvania has recently issued its Circular No. 31, containing instructions to sextons and undertakers regarding the handling of the bodies of those who have died by contagious diseases. It bears date of December 1, 1890, and comprises in a dozen pages a very full digest of rules and suggestions as to "when, how and where undertakers can and should be sanitarians." One point of prime importance, the avoidance of public funerals after death by infectious disease, is made especially prominent, and it is urged upon all intelligent undertakers that their influence and counsel should always be exerted against publicity and delay in the disposal of the dead in such cases. The undertaker not only owes it to his personal safety to manage such cases with despatch, but the interests of the commonwealth, in checking the dangers from communicable disease, point in the same direction.

The importance of a free use of potent disinfectants is emphasized, and suggestions are offered tending to the employment of simple, efficient and non-hazardous means for embalming the contagious dead. The circular advises, however, that no process of cadaveric preservation by arsenical preparations, and the like, shall be used unless it shall be known to the undertaker that a written certificate of the cause of death has been given by the attendant physician; and that embalming should never be attempted in the face of circumstances of a suspicious nature. This advice is valid chiefly from the medico legal standpoint, since death from poison may be covered up by an unduly hasty use of certain embalming methods.

The use of the ice-box is particularly named as an objectionable procedure in the case of contagious deaths. The superficial action of the ice used in the refrigerant process can have little to do towards removing the contagious dangers in these cases, while the process itself is unsafe as regards the undertaker and his assistants, since it involves considerable unnecessary manipulation of the bodies so treated. The circular adds, in this connection, that instances of wanton recklessness have been reported to the Board, in which the ice after use in the box has been thrown in the public street, and the box has been taken the same day into an uninfected house without having been disinfected.

POISONING BY EXALGINE.

A case of poisonous overdosing with exalgine is given in a recent issue of the *British Medical Journal*, by E. E. DYER, M.D. The patient, a man of twenty years, applied for treatment for rheumatism. Exalgine was ordered in doses of grains ijss, in tincture of orange and water, at six hour intervals. DR. DYER was prevented from seeing the man until over forty hours had elapsed, during which time he was told that six doses had been taken. The patient presented the symptoms of carbolic acid poisoning; had been sleeping almost continuously for twelve hours, frequently starting in his sleep, and was very dull and heavy when aroused; complained of pain in the lumbar region. Urine had been passed only twice in twenty-four hours and was of an olive-green color; its specific gravity was high; there was no albumen or blood; deposits of the urates, and not phosphates, were observed. He complained greatly of thirst; the skin was hot and dry, but the highest

temperature obtained was 98° F.; the pulse counted 102, and was full and strong. Salivation was a marked symptom for several days; this was treated by occasional doses of chlorate of potash and subsided soon after the cerebral and renal conditions improved. Otherwise the only treatment mentioned was a diaphoretic and diuretic mixture. The rheumatic and myalgic symptoms appeared to be relieved by the exalgine.

A FORM OF FAITH CURE FOR SNAKE-BITE.

In Southern India, where the natives suffer so much from snake-bite, especially that of the venomous cobra, it is strange that these reptiles are for the most part left in peace, on account of the influences of tradition, superstition and worship of all forms of animal life which forbid their destruction. Even special days are set apart for the adoration of the cobra, when offerings of sugar, milk and other articles of food are made to it. And this is done despite the fact that, in the province of Mysore at least, the Government offers to pay a reward for every snake that is killed and brought in, and thus a superstitious dread of consequences prevents the extermination of these reptiles. The natives believe that their best protection against snake-bites lies in their devotions and offerings, and that if they do not secure immunity against the venom of the reptiles, the fault has been their own, by reason of their inadequate devotions and offerings; which is much the same line of reasoning as that adopted by the unfortunate faith-healers of our own country, who, starting with the proposition that all disease is sin and want of faith, find it easy to charge the latter upon every poor invalid who does not at once declare that he has been healed under the ministrations of the "healers."

EDITORIAL NOTES.

THE BENEFITS OF A SATISFIED STOMACH.—Aside from the well-known aphorism touching the importance of a well-filled stomach upon the joy of the individual, there now comes a confirmation of an opinion which has long been held among physicians, viz., that a full stomach acts as a force against the invasion into the system of the peculiar poisons of many diseases. Experiments have recently been made which go to show quite conclusively that hunger lessens the ability of the body to defend itself against disease germs. This comes not alone from the fact that the stomach, and sympathizing organs, are actively engaged in that work which they are physiologically destined to perform, but as well from the general effect this may have upon those guiding and governing centres of the central nervous organization, and, also, probably, other factors of which we have but little knowledge.

A NEW INTERPRETATION.—An English quack was recently brought before the police court for practicing without due qualification, who, in defending the use of the characters M.D. and F. R. S. after his name, said they meant "money down" and "Fosterer of Real Science." The individual's genius, however, did not save him for he was fined twenty pounds M.D.

HARPER HOSPITAL, DETROIT.—Staff positions at this institution are hereafter to be had only through the avenue of a competitive examination, and such examination has been thrown open to the graduates of all medical schools. Formerly the positions were accessible but to those holding credentials from the Detroit College of Medicine.

THE WISDOM OF GALEN.—Even upon the subject of lead-poisoning that great medical writer of early ages—Galen—had a clear conception. Thomas Oliver, M.A., M.D., (*Brit. Med. Jour.*) refers to him as condemning the use of leaden pipes, stating that the water which was conveyed through them took on a muddiness from the lead, and produced a kind of dysentery in those who drank it.

FURTHER PRECAUTIONS AGAINST POISONING FROM PRESERVED MEATS.—A timely suggestion has been offered by a German physician that the date of original preservation be stamped upon each and every can or package containing meat foods. It is held that preserved meats, hermetically sealed, may remain wholesome for a year or so, but that there is danger in the use of such foods after this period.

PAGET'S NEW BOOK OF CASES.—Sir James Paget has issued a new book, Longman's publishers, entitled "Studies of Old Case-books," in which he discloses somewhat of his literary methods. He began to take notes with the very first case he ever saw, while he was yet an appren-

tice to a medical practitioner of Yarmouth, and he has continued during his forty years of practice the systematic recording of his cases. It is from his numerous volumes of notes that some of his former writings and these newly published "Studies" have been drawn. In the latter, as in earlier books, is displayed the same graceful diction and charm of polished style that have won for him friends among American readers who never saw him. In one of his essays he writes in autobiographic way of "An irregular pulse," his own, which record he closes with the sententious saying: "Few things are more inconceivable than are many things which are certainly true" And on another page when treating of spines that are suspected of being deformed he gives expression to this pithy precept: "Bad postures, long maintained, will bring on bad shapes, and even good postures, maintained with weariness, are hardly less injurious." To those who may never hope to see this great surgeon in person this book gives an opportunity to view that winning mental part of him which can be reflected upon the printed page.

"When Doctors Disagree."—The following resolution was passed at a late meeting of the British Gynecological Society: "That the Obstetrical Society be invited to appoint a sub-committee to act with the sub-committee of this Society to inquire into the cases in dispute between Sir Spencer Wells and Mr. Lawson Tait."

Ornamented Skeletons.—M. Vasselovski has recently discovered two caves in the Crimea which contain prehistoric remains. These include parts of human skeletons of which some of the bones give evidence of having been painted. It is probable that these relics come down from the time of the Cimmerians, of whom Herodotus wrote, regarding their strange rites of sepulture; it was their practice to expose the bodies of the dead at the top of some hill or promontory and there leave them until the bones had been picked clean by birds of prey; then the skeletons were collected and when completely dried were painted over with some mineral pigment.

Dangers and Damages due to Factory Whistles.—Dr. J. H. Albee has won a suit for damages, amounting to $6,000, for a broken leg, which the jury at White Plains, N. Y., decided was chargeable to the blowing of a steam-whistle, belonging to the shoe-factory at Chappaqua. Dr. Albee is a Rhode Island physician who had been summering at Chappaqua, in the summer of 1888; one day in July he with a friend was driving near the shoe-factory, when the whistle, known as the "seven-mile whistle," was blown; the horse they were driving became affrighted and ran away. The riders were thrown out of the wagon, and one of them, the physician, received a serious fracture of the leg. The injured physician, in this instance, may or may not have been engaged in professional duty when the whistle shrieked, but he has our sympathy in either case, and we hope that his cause is well and finally won. And for this reason: we thoroughly detest and reprobate the use of these life-endangering steam whistles, which disrupt the atmosphere for miles around. These seven-mile whistles serve no useful purpose that is imperatively demanded by trade or industrial pursuits, while they are in many places a daily menace to property on wheels, to limb and life of animals and men, and of the general practitioner, in an especial degree. These frightsome noises have no right to exist.

Scabies Among the Chinese.—The *London Medical Review*, February, in some remarks on the low state of medical practice among the Chinese, states that whatever else may be lacking in their system, they do not stand in need of medical aphorisms. These have come down to them from numberless generations and are a large part of their stock in trade. One of these aphorisms, taken at hazard by the *Review*, is: "Out of every ten men eleven have the itch." While there is abundant testimony from other sources that the itch is very prevalent in China, we are forced to the conclusion that as a statistical statement the above aphorism is a failure. There is evidently no need for any parliamentarily inclined individual to rise up and "move to make it unanimous:" the unanimity is there already.

Dr. Koch in Egypt.—The overworked Professor Koch has gone on a trip up the Nile which will consume a fortnight or more. It is expected that he will be back again in Berlin directly after Easter to take up his new duties. *The Lancet* correspondent at Cairo writes that Koch arrived there on February 12, looking very thin and ill after five days' sea-sickness and all its attendant evils, and that he avoided all social entertain-

ment, proffered dinners, visits and the like so far as it was possible. Before leaving the city on the 14th, however, Koch found time to visit the Kasr-el-Aini Hospital and the German Hospital and to inspect the cases under treatment, at both of them, by tuberculin. At the former institution he found not less than twenty cases of phthisis, lupus and tuberculous joints on which to lecture briefly as to the time and method, and quantity for the injection. He inclined to criticise here, as elsewhere, those operators who use the remedy with too much caution. He thought the doses were not infrequently too small and at too long intervals to procure the desired result.

Regarding the tourist-season on the Nile, the writer adds that despite the opening of new hotels and a new line of Nile boats, Cairo has never been so overcrowded before as it has been during the past winter; during four days of the week when Koch passed through not less than 500 travelers left the capital—250 to go up the Nile and as many more going in the other direction to the Holy Land, Athens, Rome and other points.

A STRIKING DEFINITION.—Dr. Holmes in his "Over the Teacups" defines a crank, "as a man who does his own thinking." They are called cranks because they "make all the wheels in all the machinery of the world go round."

AMERICAN ACADEMY OF MEDICINE.—The sixteenth annual meeting of the American Academy of Medicine will be held at Washington, D. C., May 2 and 4, opening at 3 P.M. May 2. As it will be just previous to the sessions of the American Medical Association, members will be able to attend both meetings.

MEDICAL ITEMS.

IDIOSYNCRASY TOWARDS FRUIT.—Dr. S. V. Clevenger, of Chicago, mentions a case (*Times and Register*) of marked aversion towards all varieties of fruit. The person is a young lady, now twenty years of age, and has always suffered from this peculiarity. She is sickened at once upon the sight or odor of apples, peaches, pears, etc., and she abhors sweets of all kinds. Dr. Clevenger desires that physicians having cases of a similar character should make them known to the medical world.

IOWA STATE MEDICAL SOCIETY.—The fortieth annual session of this Society will be held at Waterloo, Iowa, Wednesday, Thursday and Friday, April 15, 16, 17. A cordial invitation is extended to the profession. An excellent programme has been prepared. Let every county or district society send a full representation of new delegates, and let the permanent members be in full force. The Chairmen of the different Sections and all officers of the Society are requested to meet in Waterloo on Tuesday preceding the annual meeting, to confer with the President, Dr. W. D. Middleton, and the Chairman of the Committee on Arrangements, Dr. D. W. Crouse, at such place as the latter may designate, for the purpose of arranging the programme and attending to other business matters. Reduced rates have been granted on all roads in Iowa. When you buy your tickets be sure to ask the agents for certificates that you have paid full fare one way. Present these early in the session for Secretary's signature. Any further information will be cheerfully given by C. F. Darnall, West Union, Secretary; W. D. Middleton, Davenport, President, or D. W. Crouse, Waterloo, Chairman of Committee on Arrangements.

DECREASE IN CANDY POISONING.—Owing to the increasing and constant warfare by the National Confectioners' Association, there has been a very marked decline in the number of instances of untoward effects from candy eating.

THE NATIONAL ASSOCIATION OF RAILWAY SURGEONS will convene at Buffalo, N. Y., Thursday, April 30, 1891. This is a change of one week from the time previously announced, the change having been made so as not to conflict with the dates covered by the meeting of the American Medical Association.

AN EVIDENCE OF FAITH.—That faith as to the ultimate outcome of the Koch treatment strongly abides in the breasts of those constituting the municipal authority of Berlin is indicated by the movement now being made to found a home for convalescents who have undergone the new process of cure.

A NEW MEDICAL LIBRARY BUILDING.—In connection with the Boston City Hospital a building was recently opened and occupied for library purposes. The general arrangement is quite convenient, and the event of the opening was made the occasion of a hearty reciprocity of good feeling between the members of the various hospital staffs in the city.

TOPICS OF THE WEEK.

PROFESSOR KOCH'S TREATMENT OF TUBERCULOSIS.

Professor Virchow, at the meeting of the Berlin Medical Society on February 25, again referred to Koch's treatment, and showed some specimens in illustration of his remarks. He doubted whether the statement by Dr. B. Fraenkel, as to the duration of miliary tubercle, based on inoculation experiments, was correct—namely, that a period of three weeks is required for its development. The question was one to be decided by clinical observers, for it could not be determined by pathologists. If one were to admit that in all those cases in which miliary tubercle is found this has been present before the injections were practiced, then a much longer extension must be given to the duration of miliary tubercle than has hitherto been assigned to it. A distinction in this respect must be made between local tuberculosis and the general acute disease which creates such marked constitutional disturbance. He detailed a case of pleuritic effusion under the care of Professor Leyden, in which phthisical signs, with laryngitis and fever, developed whilst under treatment by Koch's injections, death supervening four weeks after the first injection. In this case there was very marked general miliary tuberculosis, submiliary granulations occurring in liver, kidneys, thyroid, larynx, and in parts of the peritoneum, including the recto-vesical pouch, as well as in the lungs, which were also the seats of old apical mischief. Here was a case which certainly did not come under the class referred to by Dr. Fraenkel, for it had been long under observation and had been injected before the supervention of the acute tuberculosis. Professor Virchow also showed a lung from a patient who had received eight injections, which presented a large caseous mass in process of separation, and an intestine exhibiting a very marked eruption of tubercles and implication of the lacteals in the vicinity of ulcers.

Professor Cantani, of Naples, in giving the results of his experience with Koch's remedy (*Berl. Klin. Woch.*, No. 9), points out that the important part of the method is the production of local reaction, which in some cases occurs without any general febrile disturbance. This local reaction, he said, is nothing else than a quickening of the natural processes whereby the organism seeks to get rid of the *materies morbi*. He found more marked improvement in cases where there was no fever and only slight local reaction—cases in which the commencing doses were very small, and their repetition with slight increase in quantity made at some intervals. He further explained that many of the alleged dangerous results of the treatment are prone to occur in the spontaneous course of tubercular disease, but may occur more readily and rapidly from the hastening of the necrotic process by the injections. Nor should the result of every case that is fatal whilst undergoing this treatment be assigned to the latter; and he did not doubt that when the time came for a full survey it would be found that the favorable results would counterbalance the unfavorable. As to the prospect of Koch's fluid curing tuberculosis, Professor Cantani remarked that the changes observed in lupus were very hopeful. In the lungs the physical signs denote the occurrence of similar changes to those observed in lupus, and the increased bacillary expectoration was evidence of the focus being destroyed. But the impediment to the free removal of the necrosed area in the case of the lungs was against marked progress, although this was noted in some cases. The laryngeal cases showed more obviously the local improvement. Professor Cantani points out that phthisis embraces not only tuberculosis, but other septic processes due to the presence of pyogenic organisms; so that in advanced cases little can be expected from the treatment, which in such must be followed with the greatest caution, if at all. He did not think the time had arrived for a definite conclusion to be formed as to the efficacy of the method in phthisis, and deprecated too great enthusiasm on the one hand and depreciation on the other as contrary to the interests of truth. The remedy was new and its effects striking, but it must be further studied before its practical value is appraised. At any rate, Koch had shown the path to be taken by bacteriology in the future, and the progress of knowledge would cause its further extension.—*The Lancet.*

MEDICAL MEN AND LITERATURE.

Literary production in other than professional fields has in all ages divided with more purely technical studies the power of attracting the mental energies of medical men. Such names as those of Roger Bacon, Sir Thomas Browne, Locke, Garth, and others have indeed so shone in the fame of letters that in their case an original connection with medicine has almost been forgotten. In these days the zeal for learning follows a more exclusively practical and scientific tendency. As if in harmony with the laws of the circulation, the cravings of the medical mind commonly find satisfaction within the round of its most familiar occupations. There are, however, not a few exceptions to this rule. We have not yet lost the medical poet or philosopher, nor have the efforts of romance in prose been unassisted by practitioners of our art. To employ thus the precarious leisure of routine in practice cannot but refresh the mind of those most nearly interested, while recent experience might also be shown to prove that efforts thus applied have not been fruitless in refreshing the intellect of the reading community. Some faults might naturally be expected in the productions of a medical writer. Among the chief obstacles to his success may be numbered a too didactic style, a philosophic heaviness, above all, a tendency to excess in realism, particularly if engaged upon that now all-popular and most profitable form of composition, the novel. An error of discretion, indeed, may sometimes lead to serious embarassment. Take, for example, the case of a medical novelist in France, who was lately called upon to answer the allegations of an indignant husband that his wife's morbid state was exactly reproduced in the heroine described by her doctor, who was therefore liable for a breach of professional secrecy. The case might well have been one in which the cap of the proverb was found to fit a head for which it was not made, but it may

serve, nevertheless, to accentuate the dislike to an exact description of morbid states and symptoms in which we must admit a share with many general readers. A high professional standard alike in literary taste and in true medical propriety is, we take it, best maintained by those who can discreetly separate what are in them related faculties, and be medical in their medicine but scholarly in letters.—*The Lancet.*

OFFICIAL REGULATIONS AS TO TUBERCULIN IN GERMANY AND ITALY.

The Prussian Minister of the Interior has given permission for the use of Koch's remedy for tuberculosis in prisons, under the following conditions: (1) A special department must be established for the purpose. (2) The medical officer in charge of these cases must reside in the institution. (3) In the case of patients with pulmonary phthisis, only those in whom the disease is recent, or who seem in other respects particularly suitable subjects, must be subjected to the treatment; and (4) the remedy must in no case be used against the patient's will. Surgeon-General von Coler has issued an order regulating the use of Koch's remedy for tuberculosis in the Prussian army. Each garrison hospital is to be provided with a special department in which the treatment can be carried out, and to this all cases of tuberculosis in soldiers belonging to the corresponding district corps which appear suitable are to be sent. The tuberculosis department is to be isolated from the others, and must be provided with all the necessary equipment for scientific observation. At a recent meeting of the Italian Superior Council of Health, the President, Professor Baccelli, presented a report on the Koch treatment, which was referred to a Special Committee. This committee has now submitted the conclusions at which it has arrived to the Council. The following is a summary of the committee's report: (1) The instruction issued by the sanitary authorities on December 14th, provisionally restricting the use of Koch's fluid to university and hospital clinics, is approved of. (2) Circumstances are now changed. The numerous experiments made in Italy and in other countries, and particularly those of Professor Baccelli himself, have better defined the true value of the remedy, and shown the indications for its use, and the possible dangers attending it. The committee therefore has no hesitation in proposing that the remedy be entrusted to the hands of individual members of the medical profession, just as they are allowed to use other remedies not less useful and at the same time not less dangerous. (3) Compared with other remedies in the pharmacopœias, however, Koch's fluid presents this difference while the purity and quality of these can always be kept under strict control, in the case of the latter there is no other guarantee than the fact of its coming from the institute in which it was originally discovered. The committee therefore considers it indispensable that the fluid should be introduced into Italy directly by the central authority, by which also it should be distributed under such conditions and with such safeguards as may be thought advisable. (4) Lastly, the committee recommends that in distributing the fluid the central authority should at the same time issue the necessary instructions for its use, and should request the medical practitioners to whom it is supplied to report all the cases in which they employ it, and the results obtained. The committee's report was unanimously adopted by the Superior Council of Health.—*Brit. Med. Journal.*

THE BEQUESTS UNDER THE FAYERWEATHER WILL TO HOSPITALS.

The will of Daniel B. Fayerweather, late of New York City, by arrangement with counsel for the contestants has at length been admitted to probate. The error of the devisor was the having made too low an estimate for the adequate support of his widow. The exact terms of the settlement are not known to the public beyond the increase of income and a cash payment, both in favor of the widow. The estate is supposed to be worth five and a half millions of dollars, which after certain gifts and bequests leaves a remainder to be divided into ten parts: one to Yale, one to Harvard, one to Princeton, one to Columbia, one to the Presbyterian Hospital and five to the Woman's Hospital. As now arranged St. Luke's, the Presbyterian and the Manhattan Eye and Ear Hospitals receive each $50,000; the Woman's $210,000; the New York Eye and Ear Dispensary, the Manhattan Dispensary, the Montefiore Home for Chronic Invalids, the Mount Sinai, the Methodist (Brooklyn) and the New York Cancer Hospitals receive each $25,000, while the Society of St. Vincent de Paul receives $50,000. It is shown by the tabulated statements as given by the secular press that the $25,000 bequests are gains to the institutions named by absolute deed of gift. So also the Society of St. Vincent de Paul gains its full amount, while St. Luke's, the Presbyterian, the Manhattan Eye and Ear Hospitals gain severally $25,000 apiece, the Woman's Hospital $200,000 and Mount Sinai $15,000. While, on the whole, this estate so far has made the greatest gifts in this country for benevolence and education, we cannot but deplore the ignoring of a profession which has rendered all such charities possible. Truly there are many libraries in and about the cities and towns which might have been medically reinforced with profit to not overwealthy physicians. Still, we are not inclined to jealousies.

LIVING MICRO-ORGANISMS IN TUBERCULIN.

The Russian commission for the study of Koch's method, headed by Prof. Wissotsky, received two packages of tuberculin, one from Libberts and the other from Guttmann. *Both were found to contain living microörganisms.* From this the commission concluded that it would be wise to confine their researches to experiments upon animals and to bacteriological studies. Three packages secured later contained living microörganisms and, like those earlier received, were strongly alkaline in reaction.—*La Semaine Médicale.*

MEDICAL PRACTITIONERS IN PARIS.

The number of medical practitioners in Paris is stated to be 2,200. As the population of the French capital is 2,300,000, this gives a proportion of one medical man to about every 1,000 inhabitants.

PRACTICAL NOTES.

ACUTE CYSTITIS.

Dr. A. W. Marsh, in the *Therapeutic Gazette*, strongly recommends the use of the following formula, requiring that *distilled* or rain water be used in its preparation to prevent the formation of oxalate of lime. The relief from pain is prompt and the results exceedingly satisfactory:

℞. Acid oxalic, gr. xvj.
Syr. aurantii cor., ℥j.
Aquæ pluv., q. s. ℥iv. M.
Sig. Teaspoonful every four hours.

FOR THE GRIPPE.

Dr. E. R. Palmer, of Louisville, says that with the recurring prevalence of the so called *grippe*, he suggests the following as a specific for adults in such cases:

Salol, ʒiij.
Phenacetin, ʒij.
Quiniæ salicylat., ʒj.
M., ft. cap. xx. Sig. Two every three hours.

—*American Practitioner and News.*

WARTS.

℞. Hydrarg. chlor. corros., 1 part.
Collodion, 30 parts. M.
S. Apply once daily about the base of the wart.

—*Cincinnati Lancet-Clinic.*

AN INJECTION FOR GONORRHŒA.

Prof. Keen gave the following formula to be used as an injection in gonorrhœa:

℞. Zinci sulphat., gr. xviij.
Catechu.
Matico, ää f ℥ jss.
Glycerini.
Aquæ, ää q. s. ad. f ℥ vj.
M. S.—Inject f ℥ss, retaining each injection for at least five minutes.

—*Times and Register.*

CREOLIN IN ACUTE GASTRO-ENTERITIS.

Schwinz has employed this drug with success in the following formulæ.

℞. Creolin, ♏iij.
Syrup althæa, f℥v.
Aq. cinnamonii, q. s. ad., f℥iij. M.
S. To a very young child a small teaspoonful hourly. To older children the drug may be given in a powder.

Creolin, ♏xv.
Sacchari alb., gr. lxxv. M.
Divide in Chart No. X.
S. One or two powders daily.

—*Wiener Medizinische Wochenschrift.*

FOR ASTHMA.

Dr. W. T. Plant, of Syracuse, N. Y., says that an asthmatic neighbor of his gets so much relief from inhaling the smoke of a teaspoonful of the following combination that he wants all other chronic asthmatics to know about it:

℞. Stramonium leaves, ää ℥iv.
Green tea dust, ää ℥iv.
Lobelia, ℥iss.

Mix together and wet up with a saturated solution of nitrate of potassium. Dry thoroughly and keep in a close can or well stoppered bottle.

—*American Practitioner and News.*

FOR ECZEMA, ETC.

In the case of a child 7 months old presenting the following symptoms: The food taken passed by the bowels undigested; there was obstinate constipation; the patient also had an eczematous rash upon the face. Dr. Rex prescribed the following treatment:

℞. Resinæ podophylli, gr. j.
Alcoholis, f℥j.
Aquæ, f℥iij.
M. S. In drop doses.

For the eczema of the face:

℞. Acid. salicyli, gr. x.
Adipis, f℥j.
M. S. Apply locally.

For a case of pharyngitis complicated with bronchitis, Dr. Brinton gave the following formula:

℞. Ammonii chloridi, gr. v.
Vini antimonii, gtt. x.
Vini ipecuacuanhæ, gtt. x.
Mist. glycyrrhizæ comp., f℥j.
M. S. Every three or four hours.

—*Times and Register.*

CROUP.

Dr. J. B. Johnson uses the following:

℞. Aquæ destillat, f℥j.
Potass. chlorat.
Potass. iodid., ää ℥j.
Emuls. arabicæ, ℥ij.
Mucilag. acaciæ.
Ext. ipecac., fl.
Olei copaibæ, ää ℥j. M.
S. Shake well. Dose, a teaspoonful every ten minutes, to an infant of 8 months, till free vomiting ensues; and then continue the same dose every half hour or hour until the disease is cured. The dose must be given according to the age of the child.

—*New England Med. Monthly.*

CYSTITIS.

This remedy is highly spoken of by a number of practitioners in genito-urinary diseases, and more especially in cases of cystitis, following operations, or from other causes. One of the best formulas is that of Dr. Hal. C. Wyman, which is as follows:

℞. Fl. ext. pichi, ℥j.
Potass. nitr., ʒj.
Simple elixir, ℥iij.
M. Sig., teaspoonful once in two hours.

—*St. Louis Med. and Surg. Journal.*

SOCIETY PROCEEDINGS.

The Clinical Society of Louisville.

Stated Meeting January 13, 1891.

THOS. P. SATTERWHITE, M.D., PRESIDENT, IN THE CHAIR.

DR. L. S. MCMURTRY presented a specimen from

A CASE OF EXTRA-UTERINE PREGNANCY

with the following history:

Mrs. S. E. M., age twenty-seven years, married nine years. Eight years ago she suffered an abortion at three months, has had uterine disease ever since, and has been sterile. She missed the menstrual period in November, and on December 7th called to see her physician, Dr. George W. Griffiths. Her complaints were of general abdominal pain and discomfort. She again called on Dr. Griffiths on December 11th. On the 13th, two days later, she had a violent paroxysm of pelvic pain localized on the right side. Dr. Griffiths saw her soon afterward and administered a dose of morphia. She was relieved for the time. On the evening of the 18th Dr. Griffiths summoned me to meet him in consultation, and expressed the belief that abdominal section was indicated. The abdomen was swollen and tender with increasing peritonitis. There was a bloody flow from the uterus. The patient was pallid as from *post-partum* hæmorrhage. Vaginal examination showed the uterus pushed to the left side and the pelvis choked with effusion. The pulse was 134, small, the pulse of hæmorrhage. The bowels had not acted for four days. We gave an energetic purgative, and arranged for operation the following morning.

Early on the morning of the 19th I opened the abdomen. Dr. J. W. Guest gave ether and Dr. Griffiths assisting. On opening the peritoneum a large quantity of blood flowed out over the table. More than a gallon of blood-clot was removed. The fœtal ball was on the right side. The right appendage was tied off close to the uterus, the cavity irrigated with warm distilled water, a glass drainage-tube placed, and the abdomen closed. When put on the table the pulse was 140 and quite feeble. The appendage on the opposite side was not removed, as I feared to prolong the operation. The operation was concluded in thirty minutes.

The specimen is of great interest. You will recognize here the ovary, and here the ruptured Fallopian tube and the fœtal envelopes. From this poured the fearful hæmorrhage, which invariably ends in death if not arrested by surgical interference.

This is the first case of extra-uterine pregnancy, so far as I can learn, operated upon in Louisville by abdominal section at the time of rupture. The success of the case is due to Dr. Griffiths' recognition of the gravity of the situation, and advice for immediate operation.

Ectopic gestation is a very common accident. Hundreds of women perish annually from this cause because it is not recognized. Dr. Formad, the well-known pathologist of the University of Pennsylvania, as coroner's physician for Philadelphia, states that in one year he found post-mortem nineteen cases of ruptured ectopic pregnancy unrecognized. The symptoms are those of shock, internal hæmorrhage and peritonitis. The patients exhibit a history of sterility and peri-uterine inflammation. The fertilization of the ovum in the Fallopian tube is due to a desquamated salpingitis by which the lining of the tube is deprived of its ciliary epithelium. Extra-uterine pregnancy is almost invariably tubal. The tube ruptures about the twelfth week. It may rupture through the free surface of the periphery of the tube directly into the peritoneum, as in the specimen here presented. This is a deadly accident, if the hæmorrhage is not arrested by surgical means. The rupture may occur in the portion of the tube included between the folds of the broad ligament, allowing the fœtal structures to escape into the cavity of the broad ligament. These latter are the cases of extra-uterine pregnancy which go on to a viable period. Extra-uterine pregnancy until very recently was not understood in its pathology, and was classified and treated as accidental hæmorrhage, hæmatocele, etc. It is now well known that most cases of hæmatocele so-called, are in reality cases of ectopic pregnancy. The treatment in all cases should be immediate abdominal section. The uterine appendages of both sides should be removed, inasmuch as the predisposing salpingitis is symmetrical. I have now operated in three cases within the last two years for ruptured tubal pregnancy, and all have recovered. The only safety in such a condition is immediate operation. The diagnosis before rupture is practically impossible. When rupture occurs the indications for surgical interference are as positive as in treating a wound of the brachial artery.

DR. GEORGE W. GRIFFITHS: I can add very little to the history as already detailed. As soon as the symptoms of shock and hæmorrhage appeared I advised operation. I have witnessed a great many bloody operations, and in my work as railroad surgeon have seen many severe accidents, but I must say that when the abdomen was opened in this case and the blood gushed out it was the most formidable operation I have ever seen. I saw the patient to-day and she is entirely healed and well, though she is pale from the severe loss of blood. She went out to the table and ate with the family to-day for the first time, three weeks after the operation.

DR. I. N. BLOOM: Had the symptoms been

more pronounced the night you first saw her would you not have operated immediately?

DR. MCMURTRY: Operation would have been immediately done had the diagnosis been absolutely positive. That is, of course, impossible before the abdomen is opened.

DR. J. A. OUCHTERLONY: I do not know when I have seen a specimen and heard a report so interesting and of such great practical importance as this. It brings vividly to my mind a number of cases I have seen during the past thirty years, which were diagnosticated by myself and others with whom I was associated as pelvic hæmatocele, and at the same time there was always something inadequate in the diagnosis, and it seemed incomprehensible why there should be such terrific hæmorrhage and such profound shock. It is a great satisfaction to know that light has been shed upon this important and perilous condition, and that we can predicate accurately the pathological condition. Cases that formerly were considered to be cases of hæmatocele are now known to be ruptured ectopic pregnancy. A most pleasant reflection is the fact that these cases can be so successfully managed by prompt surgical interference. It gives confidence and hope to the medical attendant, and it is a warning, and a solemn one, to lose no time in adopting the prompt course of procedure taken in the case just reported.

DR. F. LEBER: Many cases of hæmatocele recover by absorption, without operative interference.

DR. MCMURTRY: When rupture occurs through the free surface of the tube it is a deadly accident from hæmorrhage unless treated by surgical means. If the rupture, however, takes place into the folds of the broad ligament the effusion may become absorbed, or the fœtus may develop there, forming abdominal pregnancy and going on to and beyond full term. The fœtal mass may break down and suppurate, discharging through the rectum or the bladder. In any contingency the safest result is secured by abdominal section. There is less danger in abdominal section according to modern methods than by taking the risk of these several terminations.

DR. T. P. SATTERWHITE: It is the first specimen of the kind I have ever seen. I agree with the essayist that it is an exceedingly difficult matter to diagnose absolutely that condition of things. In several cases, which I have seen with Dr. McMurtry, I considered his advice to open the abdomen unwise, but in every instance have been convinced that it was the correct course to pursue.

DR. F. LEBER: I was asked to see a young man who was injured out West. It was

A CASE OF CRUSHED FOOT.

When he arrived at his home in Louisville he had been treated for three weeks. The foot was in a very bad condition, and I advised amputation above the ankle-joint. This was refused, and the case was treated by another physician. I was again asked to see him, and again suggested amputation, which was refused. I report this case to say that in my opinion in all such cases amputation should be done above the ankle-joint. In my opinion Chopart's amputation has never been satisfactory. I recall to mind a case left in my care by the late Dr. Cowling, in which Chopart's amputation was done. It left a miserable pointed stump. I treated it for months with various devices, but never succeeded in getting a good stump. I was compelled finally to amputate. My experience during the war convinced me that none of these operations below the ankle gave such good results as amputating above the ankle.

DR. J. W. GUEST (by invitation): I had two cases of this description in the hospital. Both healed by primary union and were discharged at the end of one month. It seems to me that in doing Chopart's amputation you save the ankle-joint as a natural joint, which is better than an artificial one. At each of these operations tenotomy was performed to prevent the stump from pointing. My experience with Chopart's operation has confirmed that operation in my confidence. It gives a good solid base for a foot independent of any artificial foot.

DR. I. N. BLOOM: I wish to make a report of a case, although one case can not determine the method of treatment for a given disease. I recently had

A CASE OF SWEATING OF THE FEET.

The means I employed in this case were very simple. I had the patient bathe the feet in a solution of bichloride of mercury, 1 to 1,000, morning and evening. After rubbing the surface carefully so as to remove the dead epidermis macerated by the sweat, I directed the following course, which is partly though not wholly original. I had a plaster sole, partly soaked in a bichloride solution, put in the shoe, the solution being 1 to 1,000. After drying the sole and placing it in the shoe, I sprinkled it with powdered boric acid. As regards the advantage of this method of treatment, there is much diversity of opinion. In this case the result was quite satisfactory. If this treatment were uniformly successful it would point to a microörganismic origin for the disease rather than a neurological. My experience has been too short to determine, but this I know, that in many cases, especially of the lighter forms, it is of nervous origin. I have always found it much easier to cure simple hyperidrosis of the feet than of the hands, and have found that Hebra's method with diachylon ointment is the only one promising any hopes of success. I have tried many other means recommended by worthy men, but

always had to return to the diachylon. The inconvenience of this latter method is great, but patients bear it, or will bear any treatment that will help to get rid of the disagreeable disease. This is especially true of women.

DR. WM. CHEATHAM: I have seen recently three cases of congenital pharyngeal fistula. They all opened on the left side of the larynx. Colored fluid, such as the methyl-violet solution, injected into the fistula, passes into the pharynx; a peculiar viscid fluid, with air bubbles, escapes when pressure is made on the tract. These cases are very difficult to heal, as the course of the fistula is so sinuous, and the healing must commence at the pharyngeal end; the best method to close them is by the galvano-cautery wire.

DOMESTIC CORRESPONDENCE.

LETTER FROM BALTIMORE.

(FROM OUR REGULAR CORRESPONDENT.)

The Winter Course of Lectures at Johns Hopkins Hospital—Professor Welch on the Etiological Relationship of the Klebs-Læffler Bacillus to Diphtheria—Professor Osler's Researches upon the Amœba Coli—The District Club—Miscellaneous Items.

Among the special courses given this winter at the Johns Hopkins Hospital are the following: "Valvular Diseases of the Heart" and "Practical Aspects of Cerebral Localization," by Prof. Osler; "The Pathology of Bright's Disease," by Prof. Councilman; "The Historical Development of Bacteriology" and "The Development of Modern Views on Immunity," by Dr. Abbott; "Special Subjects in Bacteriology," including "The Relation of Bacteria to the Infection of Wounds," by Prof. Welch, and special subjects connected with mental disease, gynecology and surgery, by Professors Hurd, Kelly and Halstead.

Contrary to the views of J. Lewis Smith, that "the Klebs-Lœffler bacillus has no more significance as a cause of diphtheria than the micrococcus of Oertel," and of Oertel, who "admits that the theory that diphtheria is due to bacteria, though plausible, is not proved" (Keating's Cyclopædia of Diseases of Children, Vol. i, p. 587, etc.), Professor Welch considers the evidence of the etiological relationship of this microörganism to diphtheria as now complete. He finds it always present in examination of the pseudo-membrane, and he has isolated, cultivated and successfully inoculated it upon animals. To all appearances, the membrane to which it gives rise is identical with that from which the infecting material was obtained. The bacillus in question, a rod-shaped organism, of about the same length as the bacillus tuberculosis but twice its thickness, is motionless, does not form spores, is notable for variety of shape, being sometimes clubbed or pear-shaped, sometimes of a dumb-bell form, and sometimes swollen in the middle. Often it is dotted, suggesting spores, but the effect of moderate heat upon these dots shows that they have not the vitality of spores. The fact that the bacillus has been discovered in other affections, as measles and scarlet fever, and even very exceptionally in the mouth in health, upon which so much stress has been laid, offers no obstacle, in Prof. Welch's view, to its acceptance, for many facts show that something more is required than the bacillus, viz.: an abrasion or a catarrhal condition of the mucous membrane. Without some such favoring condition, the bacillus will not gain an entrance and find a nidus for its lodgment and development. Prof. Welch gave minute directions for taking the membrane from the throat for examination and for the cultivation of the organism. He laid great stress upon the value of such examination for diagnosis, considering it to be the duty of every physician to fit himself for making it whenever the occasion requires.

Prof. Osler continues his researches upon the amœba coli, and a short time ago exhibited microscopic specimens from his tenth case. Hundreds of these giant amœbæ, which are nine or ten times as large as the white blood corpuscles, were seen upon the slide, undergoing continual change of shape. The last nine cases were indigenous. In more than one he was able to make the diagnosis of abscess of the liver with perforation into the lung, merely from finding the organism in the sputa. Such sputa present a very characteristic appearance, he says.

The Historical Club at the Hopkins continues to be well attended and to present interesting programmes. Many outside physicians interested in such subjects attend its meetings. In a sketch of John Archer, M.B., by Dr. J. M. T. Finney, the following interesting account of the circumstances attending the awarding of the first medical diploma in America is given: "In June, 1768, at the Commencement of the College of Philadelphia, afterwards the University of Pennsylvania, medical degrees were conferred for the first time in the New World. On that occasion there were ten candidates for degrees, their names being Archer, Carroll, Duffield, Potts, Elmer, Fullerton, Jackson, Lawrence, Tilton and Way. At that time, seven years before the War of Independence, the feeling among many of the colonists was still strongly in favor of the mother country on all occasions. Among their number were the faculty of Philadelphia College, all of whom had received their medical education in England. Immediately a controversy arose as to who should receive the first medical diploma on this side of the ocean. The faculty, animated by the feelings alluded to, declared their intention of conferring it upon the only Englishman

among the candidates—Potts by name. The other candidates protested; still the faculty would not yield. But the former, who had already passed their examination, demanded unanimously, with the single exception of the Englishman, certificates of their having so passed, at the same time expressing their determination to repair at once to Princeton, present their certificates to the faculty there and request diplomas from them. The idea of losing nine out of ten members of this, their first graduating class, was a little more than the faculty could stand, so they agreed finally to let the young rebels arrange the matter among themselves, whereupon they agreed to receive their diplomas in alphabetical order, except that they generously allowed the Englishman to come fourth in order, whereas a strictly alphabetical arrangement would have placed him eighth in the list. As Dr. A.'s name headed the list, he was the first of the candidates to receive his diploma. In the published history of the University, the list of graduates is printed in the order given above. The Princeton College and Philadelphia Medical College diplomas of this quite remarkable man are to be seen at the Medical Library room in this city, also his old mortar, medical ledgers and a pocket-case of silver-mounted surgical instruments which he used in his practice, as well as the proceedings in manuscript of the Hartford County Medical Society, held in his office in old Medical Hall over a hundred years ago."

Dr. Osler spoke of the first American surgery, published in 1776, and of its author, Dr. John Jones, who died in 1791 in Philadelphia. It was used as a manual by the medical officers during the Revolution. Dr. Hoch gave extracts from the "Ebers Papyrus," the oldest medical writing extant. It was written in the Coptic language, and was discovered in Egypt. It is preserved in the library at the University of Leipzig, stretching through two rooms, and is covered with glass for protection. It is still neat and clean. Its only medical value appears to be its antiquity. Dr. Kelly drew attention to a trial for witchcraft for deformed genitals, which took place in Virginia in 1705, and is given in "Howe's History of Virginia;" he believed it to be the only case of the sort reported in the Southern States.

Dr. John N. Mackenzie reported recently a case of tuberculosis of the lip in a negro, aged 35. The man first noticed an ulcer on the centre of the lower lip four months before he came under notice, having previously suffered from symptoms of pulmonary and laryngeal trouble. One month later he had noticed another ulcer at the right angle of the mouth, extending slowly and invading the inner surface of the cheek. When he came under notice (he was seen at the dispensary only twice, as he died shortly after), the central ulcer was slightly less in size than a silver quarter, it was granular, oval, on one side shading off into the surrounding tissues, and on the other presenting a more or less clearly marked beveled border; its base consisted of flabby granulations, some resembling small tubercles, was covered with muco-pus, and had a worm-eaten appearance. The other ulcer presented similar appearances. The lip was swollen to three or four times its normal size. The tuberculous nature of the ulcer was confirmed by microscopic examination. The larynx showed the usual signs of tuberculous disease. The great variety of these cases was pointed out: of 114 cases of buccal tuberculosis collected by Delavan, in 1886, only two were seated on the lip. H. Mackenzie, of Edinburgh, refers to a third, a fourth was seen in Vienna, but not reported, and Prof. Welch had met with a fifth. As pointed out by Prof. Welch, it is possible that some of the cases reported as epithelioma of the mouth were of this nature.

Dr. Charles E. Simon, Assistant Physician at the Hopkins Hospital, having tested the urine in almost every case occurring in that institution, and also cases in health, has not obtained Ehrlich's test (the so-called diazo-reaction) in any cases except phthisis and typhoid fever. Contagious diseases were not included in his researches.

A department for teaching the science and practice of invalid cooking has been organized in the Johns Hopkins Hospital Training School for Nurses, under Miss Hampton, the Superintendent. A competent teacher was secured from the Boston Cooking School. Two pupils are sent to her for a month at a time and their hours of duty are from 7:30 A.M. to 5.30 P.M. The chief portion of the instruction is given in the cooking school kitchen which is in a room convenient to the wards. The method of preparing about 150 different articles of sick diet is taught during the month, and all the beef tea, chicken-broth and mutton-broth for the use of the hospital are made each morning by the pupils. Theoretical instruction by lectures is given in the afternoon. Each pupil is required to give a practical test of her proficiency at the end of her month by preparing as large a number of dishes without aid from her teacher or notes as possible. There are also oral and written examinations. The approximate cost of establishing and providing such a school for the first year is $600, after that $500 or less. Itemised, the expenses are: complete outfit of utensils, $70; range, $20; tables $8; dresser, $3; china closets, $3; sink, $15; other details, $5; teacher's salary, $30 per month; cost of teaching material per month, $6 to $8; fuel, $1.50. The school has been working for six months and its value has been demonstrated.

The University of Maryland Training School for nurses is in a flourishing condition, under the able direction of Miss Parsons, Superintendent, an English nurse trained at St. Thomas' Hospital,

London, and in the Egyptian campaign under General Wolseley. She was decorated by the Queen with the royal red cross. It was established primarily to supply nurses to take the place of the Sisters of Mercy, who left the University Hospital two years ago, and the present class (the second) consists of twenty students. A concert and tea were tendered to the nurses on the 25th ult. by the wives of the members of the medical faculty. Notwithstanding the unfavorable weather, a large and distinguished company assembled, comprising many of the élite of the city. The interior of the hospital was beautifully decorated with potted plants, and the whole building with its bright and cheerful rooms, and its spotlessly clean corridors was thrown open for inspection. In the nurses' sitting-room a table was spread with good things, lit up by wax candles in shining candelabra and under yellow shades. After addresses by Prof. Chew and Miss Parsons, outlining the work and methods of the hospital and training school, a delightful musical programme was rendered by several of our best vocalists, including two of the alumni of the University, Drs. Hopkinson and Sanchez. The establishment and success of this school have been most gratifying to the authorities of the University; it not only supplies the nursing service of the hospital in the most effective manner, but promises likewise to supply a much-felt want in the community. The nurses have a thorough training both in the general and in the Free-Lying-In Hospital of the University near by.

On Thursday, January 15th, in the presence of a number of city officials and several members of the medical profession, the new morgue was turned over to the Health Commissioner by the Inspector of buildings. Dr. Rohé, Health Commissioner, made an address in which he stated that the small amount which had been appropriated ($4000) had been judiciously spent, after due examination of similar structures elsewhere, and he did not believe there was a building in the country better adapted for the purpose of a morgue than this one. It has an office, an inquest room, a cold storage-room containing a refrigerator capable of accommodating five bodies, an autopsy room, a room for surgeon's instruments, a cabinet room for the effects of the deceased, an elevator, closets, etc. A lunch was served at the close of the exercises. The cause of the medical education of women, which received such an impulse by the action of the Johns Hopkins Hospital authorities, has been further strengthened by the able advocacy of Cardinal Gibbons, the Roman Catholic Archbishop of Baltimore. In a letter recently published, he says there is no obstacle in ecclesiastical or canon law to the study and practice of medicine by women. "I do not hesitate to say," he says, "with due deference to the judgment of others, that in my opinion it is important to the well-being of society that the study of medicine by Christian women should be continued and extended. The difficulties that are said to attend their pursuing the necessary studies in the same schools with men may be obviated by judicious precautions, and these difficulties should not debar women from the profession of medicine. The prejudice that allows women to enter the profession of nursing and excludes them from the profession of medicine cannot be too strongly censured."

The annual reports for 1890 of our two special Eye and Ear Hospitals—the Presbyterian, and the Baltimore Eye, Ear and Throat Charity Hospitals, were published in January. In the former, which is much the larger, being supported with zeal and liberality by the large and wealthy Presbyterian denomination of this city, there were 9096 entries, with an average work-day attendance of 115; 1,517 operations were performed and 586 patients were treated in the wards averaging 9 days for each. In the other institution, now in its 9th year, 2,620 patients were treated; 971 of these were colored and 1,649 white; 1,632 were eye cases, 414 ear, and 599 throat cases; 226 operations were performed. The dispensary recorded 8,329 visits.

A course in hygiene is being conducted and will continue through the spring at the Johns Hopkins Hospital, under the direction of Drs. John S. Billings and Alex. C. Abbott, the latter assistant in bacteriology and hygiene; it consists of lectures and laboratory work, and embraces studies and investigations in the hygiene of atmosphere, water, ground, milk, meat, heating, ventilation, disinfection, building material and clothing. It is announced that Dr. Abbott has received and will accept a call to the hygienic laboratory of the University of Pennsylvania.

The Academy of Medicine of Baltimore is defunct. Instituted in May, 1877, by a number of the older physicians of the city, it began an unpopular career by requiring that candidates for membership should have been ten years in practice. Later it relaxed so far as to permit those excluded, to enter upon the presentation of an acceptable thesis. A few availed themselves of this privilege to become members, but the society never was vigorous, and ultimately perished for the want of that young and working element of which it had voluntarily deprived itself. There were those who thought that had it begun by requiring of all its candidates without regard to age, theses, the result would have been different.

At recent elections held in our several societies, the following were chosen presidents: Gynecological and Obstetrical, Dr. Henry M. Wilson; Medical Association, Dr. J. Edwin Michael; Medical and Surgical Society, Dr. David Street.

A change in the editoral management of the

Maryland Medical Journal places Prof. J. Edwin Michael in charge of that journal, whilst the retiring editor, Dr. Wm. B. Canfield, assumes charge of our new journal, the *Baltimore Medical and Surgical Record*. Dr. Michael is one of our best writers and speakers, and is energetic, courageous and talented. His appointment promises well for the future of the journal.

To the Alumni of the University of Maryland, scattered far and wide, it will be of interest to learn that the present class of the old school have adopted maroon and black as the University colors, and a yell—"Rah! Rah! Ree! U-ni-V of M.D. Rah!"

Although the Koch lymph has been used in our four principal hospitals, no results have been made known as far as I have seen except those at the Hopkins. Whilst the expressions of the Hopkins staff are reserved, they are decidedly favorable. More time is evidently required to know the true value of the method, and the cautious utterances of Dr. Osler and his associates cannot but elicit our commendation. Prof. Osler met with one case, where, although there were bacilli in the sputa, and other evidences of phthisis, there was no reaction after injections of 0.003 mg. of the fluid.

According to the figures of the Federal Census taken last June, Baltimore then had 434,439 inhabitants; the police census taken in November made it 455,427, the increase in ten years was 101,838 or 30.34 per cent.; about one-fourth of this increase was derived from annexing two miles of territory on the north and west of the city. During the same period the per cent. of increase in the State at large was only 11.28. The city has been steadily gaining on the State ever since the first census in 1790; at that time, it had only 4.22 of the State's population, whereas in 1890 it had 41.73 per cent. E. F. C.

BOOK REVIEWS.

ILLINOIS STATE BOARD OF HEALTH. Seventh Report on Medical Education, Medical Colleges, and the Regulation of the Practice of Medicine in the United States and Canada, 1765–1891. Medical Education and the Regulation of the Practice in Foreign Countries. By JOHN H. RAUCH, M.D., Secretary, 1891.

For the first time in its history the Report on Medical Education, issued by the Illinois State Board of Health, embraces the medical institutions of the whole world. This is a feature that will be an assistance to medical boards that have to determine the value and validity of a medical diploma.

As regards medical education in the United States, the Report shows the marked changes for the better that have taken place in the past ten years, and it is seen that more progress will be made within the next two years. Most of the changes for the better that have been made in this century have occurred since 1881, when the first number of this Report was published, and since 1882–83, when the schedule of minimum requirements of the Illinois State Board of Health went into effect. In 1882 only 45 colleges in the United States and Canada required educational qualifications for matriculation; now the number is 129. Of the 148 medical colleges 123 now teach hygiene and 119 teach medical jurisprudence. In 1882 these branches were taught in 52 and 61 colleges, respectively. In 1882–83 the average length of the lecture terms was 23.5 weeks; the average is now 26.3 weeks. There are now 111 colleges that have lecture terms of 6 months or more, while in 1882–83 the number was 42. A table shows the results of the examinations before the State Boards of Medical Examiners of Alabama, Minnesota, New Jersey, North Carolina, South Carolina and Virginia, since the dates of their organization. Another table shows the results of the Prussian State Examinations in 1890.

Special attention is called to the fact that in some of the largest universities in this country courses preliminary to the study of medicine are now offered — the University of Pennsylvania, Cornell, Yale, Princeton, Lake Forest and Northwestern Universities, Johns Hopkins and the University of Wisconsin, while Harvard has made arrangements by which those intending to study medicine can take a special A. B. course in three years. The course offered by the University of Wisconsin is fully outlined, as is the one that was proposed by the Medical Department of the University of Michigan, but was rejected by the joint faculties. The Report shows a marked increase in requirements as to preliminary education during the year 1890. It shows also that the movement for four years' study and three courses of lectures is an assured success, and a list is given of the colleges that have adopted or will soon adopt the requirements of longer terms of study.

Several State Boards, having authority similar to the Illinois Board, have already adopted the requirement in this respect, and those that have not already done so, will in a short time coöperate in the movement. The potency of this factor will be appreciated when it is considered that these boards directly control the recognition of diplomas in an area embracing about 41,000,000 people, and indirectly in almost the entire area of the United States; and that a number of them exercise jurisdiction in the new States and Territories.

It is suggested in the Report that, with four

years' study and three courses of lectures assured, the boards of medical examiners and the colleges should coöperate in establishing a system of registration of medical students before they enter college, in order that the requirement of one year of study outside a college may not be a mere form.

A correct *résumé* of the Medical Practice Acts in the different States and Territories is a valuable addition to the Report. Comprehensive tables show the progress made towards higher medical education in the past ten years, with the numbers of matriculates and graduates for each year, and the percentage of graduates to matriculates. These tables show the effect of the schedule of minimum requirements of the Illinois Board after the session of 1882–83. In 1882–83 the total number of medical students in the United States was 12,274, while in 1884–85 it was 10,987; and the 12,000 mark was not reached again until 1887–88. The percentage of graduates to matriculates in the United States has fallen from 35.8 in 1881–82 to 30.1 in 1890. The percentage in Canada has not reached 24 in ten years.

That portion of the Report devoted to institutions and regulations in foreign countries contains in full the requirements of the examining boards in Great Britain, with the names of all the medical schools and of all the hospitals in which instruction is given. The requirements as to preliminary education in foreign countries are given for purposes of comparison, as well as the requirements for graduation and for the license to practice. The course of study and the semesters in which the various subjects should be taken up, as advised in the German universities, as well as a description of the German method of examining for the license to practice, are given in full. In addition, the correct names and locations of foreign medical institutions are given.

A COMPEND OF DISEASES OF CHILDREN. Especially adapted for the use of medical students. By MARCUS P. HATFIELD, A.M., M.D., etc. With a colored plate. Philadelphia: P. Blakiston, Son & Co. 1890. Pp. 185. $1.00. (Quiz-Compends No. 14.)

We have no hesitancy in saying that the neat little volume before us is a succinct presentation, in a pleasant form, of *many* of the diseases of children. To say that it is a *complete* compend would require the critic to ignore almost wholly the existence of such an important feature of the human economy as the respiratory system.

Of all the diseases of early life a very large number belong to either the digestive or respiratory tracts; yet, whereas upwards of forty pages are devoted to diseases of the digestive apparatus, it is impossible to find space given to respiratory affections—aside from two or three pages upon atelectasis pulmonum and asphyxia neonatorum. The author must certainly have a due appreciation of such diseases as catarrhal laryngitis, pseudo-membranous laryngitis, bronchitis, pneumonitis, pleuritis, etc., and the importance of their intelligent treatment at the bedside of the child.

The subject of intestinal worms, also, remains untouched.

NECROLOGY.

Professor Charles T. Parkes.

Charles T. Parkes, Professor of Surgery in Rush Medical College, one of the leading and most popular surgeons in the United States, died at his home, No. 51 Lincoln avenue, Chicago, Ill., March 28, at 3:30 A.M. Death resulted from pneumonia produced by an attack of the "grip," the illness dating from Monday, March 16.

Dr. Parkes was born in Troy, N. Y., in 1847. He served during the war in an Illinois Volunteer Regiment, and was mustered out as Captain in 1865.

Entering upon the study of medicine he at once assumed a foremost position in his classes, and from 1868 until 1875 was Demonstrator of Anatomy in Rush Medical College. He was then advanced to the Chair of Anatomy, which professorship he held until his appointment to the Chair of Surgery in the same institution, made vacant by the death of Prof. Moses Gunn. His advancement in his profession was phenomenal, and this sudden termination to his brilliant career will bring grief to the hearts of all who knew him.

The family of Dr. Parkes is sojourning in Europe; his wife and only daughter being in Italy, and his only son in Paris, to whom the sad news has been cabled. His remains have been placed in a receiving vault to await their return. This signal loss to his city, to his State, and to the country will be more fully referred to when by the faculty of his college and by the various medical organizations, in which he rendered such conspicuous services, appropriate action shall have been taken.

ASSOCIATION NEWS.

American Medical Association.

The Forty-second Session of the American Medical Association will be held in Washington, D. C., on Tuesday, Wednesday, Thursday, and Friday, May 5th, 6th, 7th, and 8th, commencing on Tuesday at 11 o'clock, A. M.

Section of Oral and Dental Surgery.

The following is a list of Essayists (with subjects), who have promised to prepare papers for the Section of Oral and Dental Surgery:

Address of the Chairman of Section, Dr. Eugene S. Talbot.

"Adenoid Growth," Dr. W. H. Atkinson.

"Treatment of Fractures of the Maxillæ," Dr. Wm. Carr.

"Genesis of Contour Fillings," Illustrated. Dr. Geo. S. Allan.

"The Teeth of Invertebrate Animals," Dr. A. H. Thompson.

"Some practical points on the care of Instruments," Dr. Wm. H. Potter.

"Rheumatic and Gouty Diathesis as Manifested in Diseases of the Paridental Membrane," Dr. John S. Marshall.

"Dental Infirmary Patients,—The Use and Abuse of Dental Charity," Dr. Richard Grady.

"Growth of the Cementum," Dr. R. R. Andrews.

"Remarks on Incipient Necrosis and Caries," Dr. J. Williams.

"Choice of Therapeutic Filling Materials," Dr. W. A. Allport.

"Thorough Dentistry vs. Partial Dental Surgery," Dr. J. Y. Crawford.

"Pathological Conditions produced by Galvanic action between dissimilar Metals in the Mouth," Dr. George W. Whitefield.

Other members who desire to read papers before this Section, should as required by the By-Laws, forward the paper or its *title* and *length*, to the Chairman, Dr. Eugene S. Talbot, 125 State St., Chicago, Ill., one month before the meeting.

HENRY W. MORGAN, Sec'y.

Nashville, March 25, 1891.

Preliminary Announcement of Programme of the Section of Neurology and Medical Jurisprudence.

"Psychological Social Problems," by Daniel Clark, Toronto, Canada.

"Status Epilepticus," by Gros R. Trowbridge, and Chas. B. Mayberry, Danville, Pa.

"The Neuroses from a Demographic Point of View," by Irving C. Rosse, Washington. D. C.

"The Functional Degeneracy of the Brain," by J. T. Searcy, Tuscaloosa, Ala.

"Diagnosis of Traumatic Lesions in the Cerebro-Spinal Axis and the Detection of Malingering Referred to this Centre," by B. A. Watson, Jersey City, N. J.

"A Consideration of Traumatic Lesions of the Spine Resulting from Railroad and Other Injuries; Their Immediate and Remote Results, Etiology, Pathology and Diagnosis," by Thos. H. Manley, New York, N. Y.

General discussion of "The Traumatic Neuroses with Especial Reference to Railway Injuries," to be opened by R. Harvey Reed, Mansfield, Ohio.

"Rib-Fracture in Insane Hospitals in its Medico-Legal Aspects," by Jas. G. Kiernan, Chicago, Ill.

"Medico-Legal Investigation of Death by Violence in the State of Massachusetts," by Silas B. Presbery, Taunton, Mass.

"A Medico-Legal Study of Blood Corpuscles in Syphilis and Other Diseases," by Ephraim Cutter, New York, N. Y.

"On What Constitutes Reliable Evidence in Trials of Criminal Poisoning," by John Reese, Philadelphia, Pa.

"Hallucinations of the Sane," by David Inglis, Detroit, Mich.

"Personality as it Effects Inebriety," by T. L. Wright, Bellefontaine, O.

"Opium Inebriety, its Legal Recognition and Treatment," by W. S. Watson, Matteawan, N. Y.

"Ether Inebriety," by Norman Kerr, London, Eng.

"The Prevention of Opium Inebriety," by J. B. Mattison, Brooklyn, N. Y.

"The Treatment of Opium Neuroses," by Stephen Lett, Guelph, Canada.

T. D. CROTHERS, M.D., Chairman,
HAROLD N. MOYER, M.D., Sec'y, Hartford, Conn.
434 W. Adams street, Chicago.

SPECIAL CORRESPONDENCE.

Shall The Journal be Removed to Washington?

ACTION OF THE NORTH CENTRAL OHIO MEDICAL SOCIETY.

The following preamble and resolution was unanimously adopted and ordered published in THE JOURNAL at the forty-first quarterly meeting of the North Central Ohio Medical Society, held at Mansfield, Ohio, March 27, 1891:

WHEREAS, An effort is being made to remove THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION from Chicago, Ill., to Washington, D. C.; and,

WHEREAS, THE JOURNAL which was born in Cleveland, Ohio, has been so well nurtured in Chicago that it has grown from a dependent, unsupporting infant, to an independent self-supporting adult, which commands the respect and support of the profession throughout the Continent, and now stands among the first of any of its colleagues in America, and,

WHEREAS, It has accomplished all this in the short space of seven years through the judicious management and untiring energies of its Trustees, Supervising Editors and Business Manager,

THEREFORE, Be it resolved that it is the sense of the North Central Ohio Medical Society in convention assembled this 27th day of March, 1891, at Mansfield, Ohio, that it is against the best interests of THE JOURNAL and the Association to have it removed from Chicago to Washington, and hereby instruct our delegates to oppose such removal.

R. Harvey Reed, J. W. Craig, M. J. Finley, A. V. Patterson, J. Harvey Craig, W. H. Race, W. H. Sykes, A. H. McCullough, R. D. Sykes, F. C. Larrimore, W. S. Mecklem, W. M. Miller, W. E. Loughridge, Geo. Mitchell, Josiah S. Hedges.

Very respectfully submitted,
R. HARVEY REED, Prest. J. S. HEDGES, Sec'y.

To the Editor:—I protest against using any more of the space of THE JOURNAL discussing its removal, and with S. E. Hampton, M.D., of Kentucky, move the previous question. Am willing that it should remain at Chicago, only make a good Journal of it. Am happy to note improvement. L. M. GATES, M.D.

Scranton, Pa., March 23, 1891.

To the Editor:—As many of the letters in THE JOURNAL opposed to its removal to Washington are from the West, I write, as originally from New England and living East, to express my opinion and firm belief that the best interests of THE JOURNAL will be served by keeping it in Chicago,

The fact that full delegations of the profession in and near Washington will be at the meeting to vote for removal should induce delegates of the North, South and West to attend the meeting and vote against removal, so that the small percentage of membership favoring removal may not out-vote the vast majority opposed to removal from the remoteness of one party and nearness of the other party to the place of meeting.

F. B. DAVISON, M.D.

Fleetville, Lackawanna Co., Pa.

To the Editor:—It is a poor plan to swap horses while crossing a stream. THE JOURNAL is successful and grows steadily more so, and I see no valid reason for making any change in its present location.

JOHN P. GRAY, M.D.

Utica, N. Y., March 28, 1891.

To the Editor:—Had I a dozen votes on the location of THE JOURNAL not one of them would be cast for Washington; it should, in my opinion, be published at some central point: Chicago, Cincinnati, or St. Louis; but if it is to go East, let it be to Philadelphia, New York, or Boston.

Washington is the place for many things of National importance;—a quiet place for legislators to meet—it is a National burying ground full of monuments; there can be found the remains of many men, things, and enterprises; in fact hundreds of clever, live men are buried there in the various departments yearly, but Washington is not the place for the headquarters of the American Medical Association or its organ. Keep the one on wheels, the other in Chicago. J. W. HOLIDAY, M.D.

Burlington, Ia., March 28, 1891.

To the Editor:—It seems strange that the whole membership of the American Medical Association should be so aroused over the question of the removal of the home of THE JOURNAL, if it is to be such a gain as some would make it appear.

Is it possible that Washington City can furnish us so much better editorial material and the Association not find it out until it has been told to us by themselves or their allies in *intrigant?*

When a question of so much moment as the resigning of so important a journal to an ignominious death to furnish a stepping-stone for somebody to raise themselves into greater prominence is to be met, it seems as if the whole membership ought to be questioned, and each allowed himself to answer.

A selfish motive, cloaked as this was at birth, cannot expect to meet with any other answer from them against whom the scheme was laid, and *now an answer should be given that would henceforth doom such actions to infamous obloquy.* The suddenness and untimely hour of springing the subject does not show honesty of purpose, and since the question is being agitated, how few champions are showing in the list for the unseemly act, and when one does he is unkind enough to make charges of incompetency against the editorial management, and the manner in which the Trustees are conducting the publication. Men who stoop to vilify their compeers do not, at least, show a generous nature, into whose hands one would desire to place a trust of so much importance as the control of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

If there be not "method in their madness," why did they so secretly secure the promise of furtherance of their scheme by a member before he was promised the nomination to fill a vacancy on the Board of Trustees last spring? It is such Washingtonian acts that have so aroused the members in all parts of this great country to answer against the removal. This is not the work or wish, seemingly, of a North or South, an East or West, but that of a few with wild dreams of imaginary honor, who live to thrive on "such stuff as dreams are made of." Were they to be deprived of the National pap, and left to their own ability and natural resources, they would dwindle into less than nature had ordained them.

Men and their works do not become great because of the opportunities offered, but because of opportunities accepted and made use of.

Chicago may yet lead Washington in extensive libraries and institutions of learning, because of its inherent energy and push to the front. If there be any stored-up energy in Washington otherwise than that which bubbles and seethes in the political caldron, would it not be well to take it to Chicago, where it can find a wholesome atmosphere to thrive upon and freedom of association of its kind? The home of THE JOURNAL undoubtedly was at first well chosen, at least it has proven well; and it is but fair to keep it where it has prospered so well.

A. M. VAIL, M.D.

Rock Rapids, Ia., March 25, 1891.

Editorial Opinions of the Medical Press.

In another column will appear the proceedings of a recent meeting of the Board of Trustees of the American Medical Association Journal at Washington. As will appear, the Board has announced as its belief, that Washington City is the proper place for the home of The Journal. The editor of the *Mirror*, as a member of the Board of Trustees, has favored and does favor, not only as a member of the Board, but as an individual, the removal of the Association Journal to Washington. He believes that the action of the Board in deferring the final decision until the meeting in May and inviting an expression of opinion from the profession at large upon the subject, was appropriate. A number of members of the Association in the West, near and dear friends of the writer, have expressed the thought that The Journal ought not to go East; that it was now in the West and that we ought to keep it here. Were the effort being made to remove The Journal to New York, Philadelphia, Boston, or any other commercial Eastern city, we believe that the argument would hold; that it would be removing it to the Eastern line and away from the centre. The same argument might be brought against its removal to any of the other cities of the West. As a matter of fact, Chicago is not a Western city. Chicago is, more properly speaking, a branch of New York City, although it is supposed to be a representative Western city, it is not at all so. Were geographical considerations to have weight, St. Louis would be more properly the centre. Unquestionably it is the hub of the Continental wheel, toward which all the spokes point.

It is the distributor of supplies to a greater territory than any other city in America. But in spite of these arguments, we are not in favor of the removal of The Journal to St. Louis; nor would we favor its removal to Cincinnati, Louisville, or any point South. In truth, any commercial city in America, suggested, would be a sectional suggestion. The removal of The Journal to Washington, however, the home of the National Government, is appropriate. A representative of the American medical profession, a National medical journal, should unquestionably be located in the Nation's Capital, the only unsectional point in America. We are strong in the conviction that this is not only the patriotic view to take of the question, but it is the view that is in the direction of the best good to the American Medical Association. A by-law, which was adopted some years ago by the Association, provided for every alternate meeting of the Association to be held in Washington City, looking toward Washington City as being eventually, in fact even now, the home of the National Association. If appropriate efforts were made, unquestionably a very large fund could be secured and a permanent building erected for the accommodation of the Association and its Journal in Washington. The various International Congresses are held the world over in the capitals of the various nations. The home of the *British Medical Journal* is in London; in fact, we are strong in the belief that all the arguments are in favor of the permanent home of the American Medical Association and its official organ, being located in the Capital of the Nation. If the time ever comes, that the Capital should be moved to a more central point, geographically speaking, then let the Association follow the Capital. In the meantime, we hope that there will be a full and free discussion in every medical journal of the United States. The Board of Trustees of The Journal have invited the freest discussion on the part of the members of the profession. The *Medical Mirror* will be glad to hear from those of the profession who are interested in the question.

In the meantime, we are on record as being in favor of the National Capital as the home of The Journal; but we are open to conviction, and shall remain in a receptive state of mind, ready for the suggestions and arguments of all friends of the Association.—*Medical Mirror*, Dec., 1890.

According to an official report of a meeting of the Board of Trustees of The Journal, held in Washinton, D. C., Nov. 13th, 1890, three things were done:

1. The Board called upon the President of the United States.

2. It resolved that the home of The Journal should be in Washington, and that the Association should be so informed.

3. The Trustees recommend that the members of the Association, and the various State and local societies, contribute funds for the erection of a permanent building as an office, library, etc., of the American Medical Association.

Aside from some criticism of the Secretary's mode of keeping his book, this is all the Board report having done at this meeting; and yet a fair estimate of the actual expenses of the members in attendance will make *it cost not less than three hundred dollars*—probably four hundred would be nearer correct. Is the Association so rich that it can afford to pay its Trustees three or four hundred dollars to make a trip to Washington, in order that the Board may visit the President of the United States, and announce gravely to the Association that it should permanently locate The Journal in Washington, and call upon individuals and societies in the profession for funds to erect a building?

The members of the Association would like to learn why the Board of Trustees, or any portion of it, deemed it fitting to gravely announce its opinion upon the subject or subjects, and why Washington is better than Chicago? This is a question for the Trustees to answer! Further, what reason is there for making this question prominent just now? We desire to vote and act intelligently upon this question, hence seek for information.

We do know that several years ago the Trustees carefully secured bids from publishing houses, printers, etc., in all principal cities of the United States, with the uniform result of ascertaining that Washington was the most expensive, and Chicago the cheapest, place of publication. Have the Trustees made full and complete investigations, with the result of finding a cheaper place of publication than Chicago? If so they should have announced the fact, and the grounds upon which it rested.

Do the Trustees desire to move The Journal to Washington because hitherto every medical journal issued there came to an untimely end? Can it be that they desire to plant The Journal in a spot hitherto noted for its failures in medical journalism? Have they a hope that under the special influence for which Washington is noted, The Journal of the Association will die an easy and painless death? Or is it because the Trustees have a grudge against eastern medical journals in general, and the medical weeklies in particular, that they desire to transfer The Journal to an eastern locality. Naturally it would seem as if the strip of country along the Atlantic coast had medical journals in abundance, and that the removal thither of another would act more or less disadvantageously. On this view of the fact, it would appear that the Trustees of The Journal either resolved thoughtlessly, or were acting in disregard of the interests of other journals.

Can a better or more reliable business manager be secured in Washington? Can better or more effective editorial work be secured? In short, is there a single reason for fixing The Journal permanently in Washington? We have not heard of a single reason that counts in favor of The Journal or of the Association. We are informed that such location is desirable because Washington is the Nation's Capital: but the publication of The Journal is a business to be conducted upon business principles, for the attainment of business ends. If there are good business reasons for locating The Journal in Washington, we have yet to learn of them. The fact that Washington is the Capital affords the strongest of reasons why such a business as the conduct of a great medical journal should not be located there; a great commercial centre is the place for a business that is National in its scope, and Washington is not such a centre. More anon.

N. B.—If we hear any reasons for removing The Journal to Washington, we shall lay them before our readers, that all may be prepared to vote intelligently upon the question.—*The American Lancet*, Jan., 1891.

The minutes of the Board of Trustees of The Journal, published in a late edition, show that an attempt has been made to move the plant to Washington. There is some question as to the advisability of such a proceeding at this time, when in the course of the next two years so many medical men from all over the world will visit Chicago, the place where The Journal was born and nurtured. Admitting that it is in some respects a Chicago journal, the question arises as to whether it would be any better, or have a greater influence or larger circulation if it were a Washington journal instead of what it is at the present time? With all due respect to Dr. Hamilton, it is suggested that his official position should prevent him from entering into any political schemes by which he will reward his friends and punish his enemies.

The time has not yet arrived when the members of the Association can afford to trust the welfare of The Journal in the hands of those who are not directly and personally interested in its progress and permanent success. Attempts have been previously made to corral the members of the Board, with a view to manage the paper to the personal advantage of those who desired to "run it for the money there was in it," but, fortunately, all such efforts have heretofore failed, and it is hoped a like fate will attend this last attempt, although it may have been considered with the best intentions. Let it be understood, once and for all time, that The Journal cannot be bought, merged or hypothecated.—*Philadelphia Medical Summary*, Jan., 1891.

The question of the removal of The Journal from Chicago to Washington City is being agitated. A meeting of the Board of Trustees has already been held to that effect. The final decision has been deferred until the meeting in May, when an expression of opinion from the profession at large upon the subject will be had. We think it folly to ask its removal to Washington, simply because it is the home of the National Government, in order that it may be designated a National Medical Journal. Washington is not, never has been and probably never will be a medical centre, and neither its location nor railroad facilities recommend it.—*Kansas Medical Journal*, Jan., 1891.

Shall the A. M. A. Journal go to Washington? This is the question which the Association will be called upon to answer at its next meeting. The Board of Trustees, at a recent session in Washington, adopted a resolution favoring the change, but not a single "Whereas" precedes the "Resolution." What are the reasons for wanting the change made? Surely they exist in the minds of the Trustees, and as officers of the Association having at heart the best interest of this organization, those reasons should be made public. Can The Journal be published cheaper in Washington? That can hardly be, for Chicago is a great publishing centre. Are the mailing facilities at Washington better? Mr. Wanamaker would hardly admit that they are. Can it be better edited at Washington? That's a "sure enough" question. The Association will be very certain to know something about a prospective editor before it votes upon this matter. In the far Eastern country the Islam prophet of old failed in an attempt to make the mountains skip at his command as kids at play, but perhaps "a greater than he is here." It does look as though the mountain were seriously contemplating a journey in a Pullman palace car to a Mahomet who has bid it come. In all soberness,

Messrs. Trustees, let the Association know why your assembled wisdom deems it best to transfer The Journal to Washington. Let it stay where it now is unless certainly shown that the interests of both the Association and its Journal will be conserved by its removal.—*Medical Herald*, Feb., 1891.

A great controversy is now being carried on regarding the proposed removal of The Journal from its home in Chicago to Washington City. The control of The Journal is in the hands of a Board of Trustees, which has recommended that the change be made. The question will come up at the next meeting in Washington, and there will be a warm discussion, and possibly indefinite results.

The time for an opinion upon this proposition is not arrived, for we are sure that the best arguments for the removal have not as yet been advanced. We fear that the action of the Trustees in referring the matter to the Association is wrong, and will result in harm. The Board was given full power to act; by its act The Journal was located in Chicago, and by its authority it could remain or be removed.

As it is now, there is a pretty war on hand, and it will grow fiercer and hotter as the time for the meeeting draws nigh. Even if a conclusion be reached at the next meeting, it may be undone at any succeeding one. We hope a motion will prevail to refer the question back to the Trustees. They are abundantly able to settle the matter—in fact, are elected to carry just such responsibility. We will have something to say about the arguments for and against removal further along.—*St. Louis Clinique*, Feb., 1891.

At the last meeting of the Trustees of The Journal of the American Medical Association, it was resolved to move The Journal from Chicago to Washington. By subsequent resolution, however, it was determined to leave the matter open until a vote could be had by the members at the May meeting. The question is therefore a proper one for agitation and it is well enough to consider the pros and cons relative to a matter of so much importance to so large a number of the medical profession.

The Journal when established was located in Chicago, largely because Chicago influence was dominant in the Association, but chiefly because it was a central point from which proofs could be readily sent to writers and as readily returned. This convenience has been experienced by contributors to The Journal, the vast majority of whom reside in the great interior valley of our broad country. Since the location of the official organ of the Association at Chicago, type and other fixtures have been purchased, and the periodical under conservative management has become one of the most influential in the country. But now right on the heels of this success comes an effort to take The Journal from its central and convenient location and publish it in a provincial city on one side of the continent.

The question is at once asked why? Is it because there are no longer printing presses in Chicago? Is it because the paper market in that city has become exhausted? Is it because the mailing facilities in that metroplis are inadequate? Is it because there are no men of brains to be found either in that great and growing medical center, or who can be induced to take up their residence there to assume editorial charge of one of the leading medical journals of the country? These are the only reasons that are entitled to consideration relative to changing the location of a great journal and yet a knowledge of the facts in the present instance condemn them as absurd to the verge of idiocy.

The only reason so far given by the promoters of the move is that Washington is the Capital of the country. Well what of it? Are there better presses, more paper, faster mailing facilities or more brilliant intellects in Washington than in Chicago? The Capital is merely a political center and as such is inimical to the highest development of science or literature. We do not want the politics of the Capital engrafted upon the journalistic interests of the American Medical Association. . . . .

Gentlemen of the West and South, be at Washington on May the 5th and vote upon this question.—*Cincinnati Medical Journal*, Feb. 15, 1891.

MISCELLANY.

THE BIG FOUR AND THE ANNUAL MEETING OF THE ASSOCIATION.—To members of the American Medical Association who contemplate attending the annual Meeting at Washington, D. C., May 5th to 8th, a few words in regard to the best means of reaching Washington will no doubt prove acceptable. The recognized line from Chicago is the Popular Big Four Route in connection with the Scenic Chesapeake & Ohio Ry., from Cincinnati running via White Sulphur Springs, through the beautiful mountain regions of the Virginias, over its own tracks into the City of Washington.

Passengers via this popular line have the choice of two elegant trains, starting from Lake Street Depot, Chicago, —the morning train equipped with elegant parlor cars, cafe dining car and luxurious coaches, makes connection at Cincinnati with the Famous "Fast Flying Virginian" via the C. & O. Route, assuring passengers of first class service, including Dining Cars, for the entire trip. The evening train from Chicago is equipped with private compartment buffet sleeping car, standard Wagner palace sleeping car and elegant reclining chair car and makes connection with the "Washington Fast Line" via the Chesapeake & Ohio Ry., affording a day-light ride through the beautiful Ohio Valley, and across the scenic Blue Ridge Mountains into the Capital.

These trains are vestibuled throughout, provided with an unequaled dining car service and afford every comfort and convenience of modern railroading. For tickets and full information call on or address J. C. Tucker, General Northern Agent 121 Randolph St., Chicago, Ill., D. B. Martin General Pass. Agent Big Four Route Cincinnati, O.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from March 21, 1891, to March 27, 1891.

Major Henry R. Tilton, Surgeon U. S. A., is hereby granted leave of absence for one month, on surgeon's certificate of disability. Par. 5, S. O. 56, Hdqrs. Div. Atlantic, March 21, 1891.

Major Passmore Middleton, Surgeon, is relieved from duty at St. Francis Bks., Fla., and will proceed to Newport Bks., Ky., and await further orders. The travel enjoined is necessary for the public service. By direction of the Acting Secretary of War. Par. 8, S. O. 62, A. G. O., Washington, March 19, 1891.

Major John H. Bartholf, Surgeon, now on duty at Plattsburgh Bks., N. Y., will proceed to Fort Wayne, Mich., and report in person to the commanding officer of that post for temporary duty. By direction of the Acting Secretary of War. Par. 7, S. O. 64, A. G. O., Washington, March 2, 1891.

Capt. Henry Johnson, Medical Storekeeper, retirement from active service this date, under the provisions of the Act of Congress approved June 30, 1882, is announced. By direction of the Acting Secretary of War. Par. 5, S. O, 66, A. G. O., Hdqrs. of the Army, Washington, March 24, 1891.

Capt. Robert J. Gibson, Asst. Surgeon, leave of absence granted in S. O. 232, A. G. O., October 3, 1890, from this office, is extended one month. By direction of the Acting Secretary of War. Par. 10, S. O. 65, A. G. O., Washington, March 23, 1891.

First Lieut. Eugene L. Swift, Asst. Surgeon, now on duty at Ft. Thomas, Ariz., will report by letter to the commanding officer, Ft. Grant, Ariz., for duty at that station or Ft. Thomas, Ariz., as the commanding officer may direct. By direction of the Acting Secretary of War. Par. 7, S. O. 66, A. G. O., Washington, March 24, 1891.

Lieut. Col. Charles R. Greenleaf, Asst. Medical Purveyor, will proceed to New York City on public business, and thence to Boston, Mass., to represent the Army Medical Department at the American Association for Physical Education; and upon the completion of the duties contemplated, will return to his station in this city. By direction of the Acting Secretary of War. Par. 3, S. O. 67, A. G. O., Washington, March 25, 1891.